

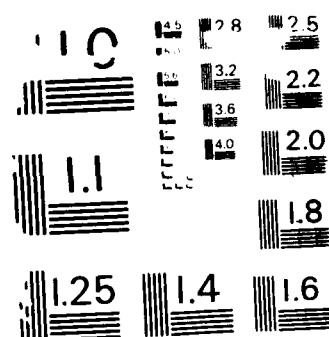
CULTURAL RESOURCES INVESTIGATION OF A PROPOSED FLOOD
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Cultural Resource Management Report

FINAL REPORT
OF THE PHASE I CULTURAL RESOURCES INVESTIGATION
OF A PROPOSED FLOOD CONTROL PROJECT
ALONG THE SNEYDEN RIVER,
AT WEST FARGO, CASS COUNTY, NORTH DAKOTA

Lead Field Investigator NERVIN G. FLOODMAN, M.A.

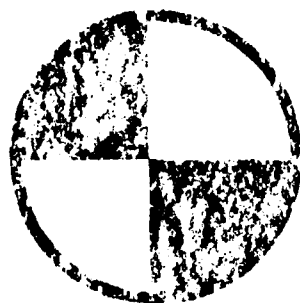
Principal Investigator MERVIN G. FLOODMAN, M.A.

Date 1-15-88 For U.S. DEPARTMENT OF THE ARMY
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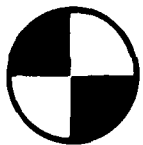
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FINAL REPORT
OF THE PHASE I CULTURAL RESOURCES INVESTIGATION
OF A PROPOSED FLOOD CONTROL PROJECT
ALONG THE SHEYENNE RIVER,
AT WEST FARGO, CASS COUNTY, NORTH DAKOTA

BY:

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MANAGEMENT SUMMARY

In the Summer of 1986 and Spring of 1987 Powers Elevation, Inc. (Powers) conducted a cultural resources inventory of the proposed flood control project along the Sheyenne River, Cass County, North Dakota, near the city of West Fargo. The work was sponsored by the U.S. Army Corps of Engineers, St. Paul District (Corps) under Contract No. DACW37-86-M-1052.

The scope-of-work required a Phase I cultural resources investigation; an intensive, on-the-ground study of the project area sufficient to determine the number and extent of the resources present and their relationship to planned components. The purpose of the work was to fulfill the obligations of the Corps in regards to the various federal laws and regulations concerning the management of cultural resources. All historic and archaeological sites within the project area were recorded and the general nature of those resources assessed. If resources with the potential to provide important information were identified, then this report was to recommend what Phase II testing measures would be warranted to evaluate their significance. The budget for the Phase I inventory was \$15,450.00.

Field work was conducted in two stages. Mervin G. Floodman and Nick G. Franke of Powers surveyed about 1,215 acres (ca. 492 hectares) in Areas A and B during the period from June 16-24 and June 29-July 1, 1986. These two project areas include the proposed levee, diversion channel, and drainage ditch system around the communities of Riverside and West Fargo, and a proposed diversion channel near Horace. Area C was surveyed by Mervin G. Floodman and Gregory S. Newberry of Powers from May 14-16, 1987, covering about 276 acres (ca. 112 hectares) along the line of a proposed new levee on the west side of West Fargo.

Field methodologies included surface survey, inspection of river cutbanks, and subsurface shovel tests to locate cultural sites along the proposed project components. Laboratory methods included the sorting of materials into lithic and ceramic categories and the description of artifact attributes. The lithic analysis was performed by Mervin G. Floodman of Powers, while the ceramics were examined by Dr. Ann M. Johnson of the National Park Service. The artifacts will be curated at the State Historical Society of North Dakota (SHSND), in Bismarck, with the Corps permission.

The Phase I survey resulted in the location of three prehistoric sites, one historic site, one prehistoric isolated find and one historic isolated find. Neither of the isolated finds are considered significant, and no further work is recommended at these locations. The one

historic site (32CS40), the Lund farmstead, is judged to be not eligible for nomination to the National Register of Historic Places (NRHP) because it is not associated with significant historical events or people, has little architectural merit, and is not likely to yield important information about local history. No further work is recommended at that resource.

The three prehistoric sites (32CS42, 32CS43, and 32CS44) are all of undetermined NRHP eligibility. While the upper levels of these sites have been disturbed by modern cultivation, there is the potential for intact cultural deposits existing beneath the plowzone. The significance of these sites can not be properly evaluated without a subsurface testing program to assess the extent and nature of their buried remains. No further work should be required at prehistoric site 32CS43, because it is outside of the proposed corridor for the new levee, and should not be adversely effected by the project. At the other two prehistoric sites (32CS42 and 32CS44) it is recommended that a Phase II archaeological testing program be carried out to formally determine their ability to yield important information, prior to any project construction activities.

The only limitation imposed on the study was that one landowner refused Powers permission to survey on his property. This included a portion of the N1/2, N1/2, N1/2 of Section 20, T.139N., R.49E., east of the river. A 200 foot wide corridor south from Highway 94, about 0.75 miles in length, totaling almost 18 acres (ca. 7 hectares), was not inspected. It is recommended that the Corps obtain landowner permission and inventory these 18 acres prior to project construction.

Copies of the field notes and project reports will be on file at the Corps, St. Paul District, and at the Powers Denver office. Original site photographs will be on file at the SHSND. Photographic negatives are on file with Powers.

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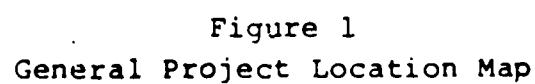
1.0 INTRODUCTION

The St. Paul District of the U.S. Army Corps of Engineers (Corps) has proposed a flood control project at West Fargo Cass County, North Dakota. The project will permit flood waters to be diverted through a separate channel at times of high flow of the Sheyenne River. The general project location is shown in Figures 1 and 2. Archaeologically, this area is within the Northeastern Plains prehistoric cultural region. Environmentally, it is located within the Red River Valley of the Central Lowlands.

The Corps awarded Contract No. DACW37-86-M-1052 on May 27, 1986 to Powers Elevation, Inc. (Powers) to conduct a Phase I cultural resources survey of the proposed flood control project along the Sheyenne River. This investigation was to serve several purposes. It was to be a planning tool for the Corps to meet their federally mandated obligations in regards to the management of cultural resources. This report fulfills both the letter and spirit of the law by identifying all cultural resources within the project area, noting which potentially significant sites may require additional work, assessing the impacts of the project on any resources, and providing a scientific reference for future professional studies. The goals of the survey were to: 1) provide data adequate to assess the general nature of the sites present; 2) offer recommendations for additional work at those resources which may contain important information; and 3) detail time and cost estimates for Phase II testing, if it was deemed necessary. The inventory recorded all sites, structures, and objects of historical, architectural and archaeological significance within the areas defined in the scope-of-work (U.S. Department of the Army 1986) (see Appendix C).

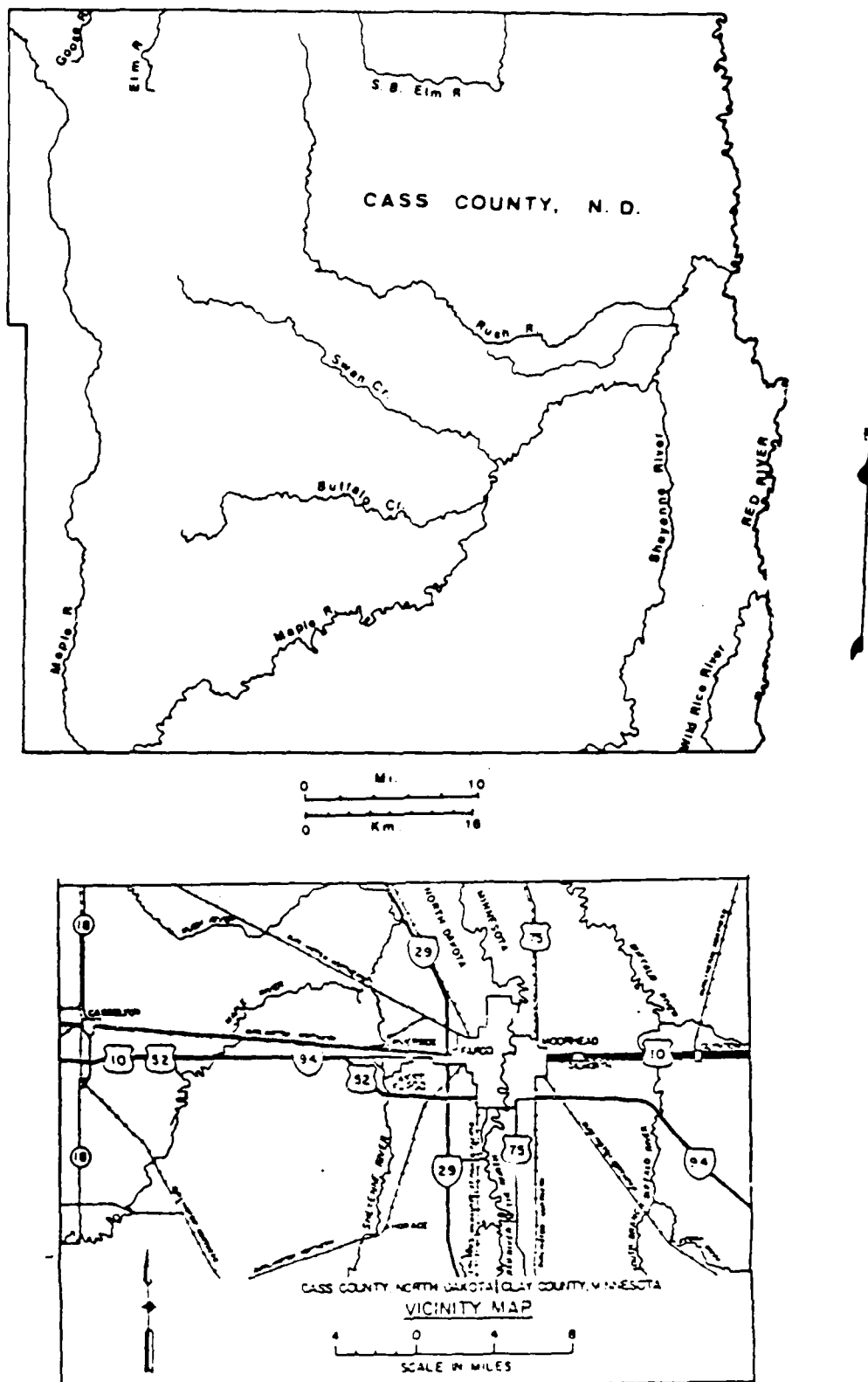
The project is intended to protect the communities of West Fargo and Riverside from future flooding of the Sheyenne River. It will include construction of two sections of levee, a flood diversion channel, related closure structures, and interior drainage facilities. Three separate areas were surveyed.

Survey Area A consists of the northernmost portion of the project. Components proposed for this area include new levee construction north and south of West Fargo, a diversion channel encircling the town on the west, and associated drainage and closure structures. Survey Area A covers approximately 1,079 acres (ca. 437 hectares), most of which was in cultivated fields. The area inventoried included portions of Sections 31 and 32, T.140N., R.49W.; Sections 5, 6, 18, 19 and 20, T.139N., R.49W.; and Sections 1, 12 and 13, T.139N., R.50W., Cass County, North Dakota (Figure 3).



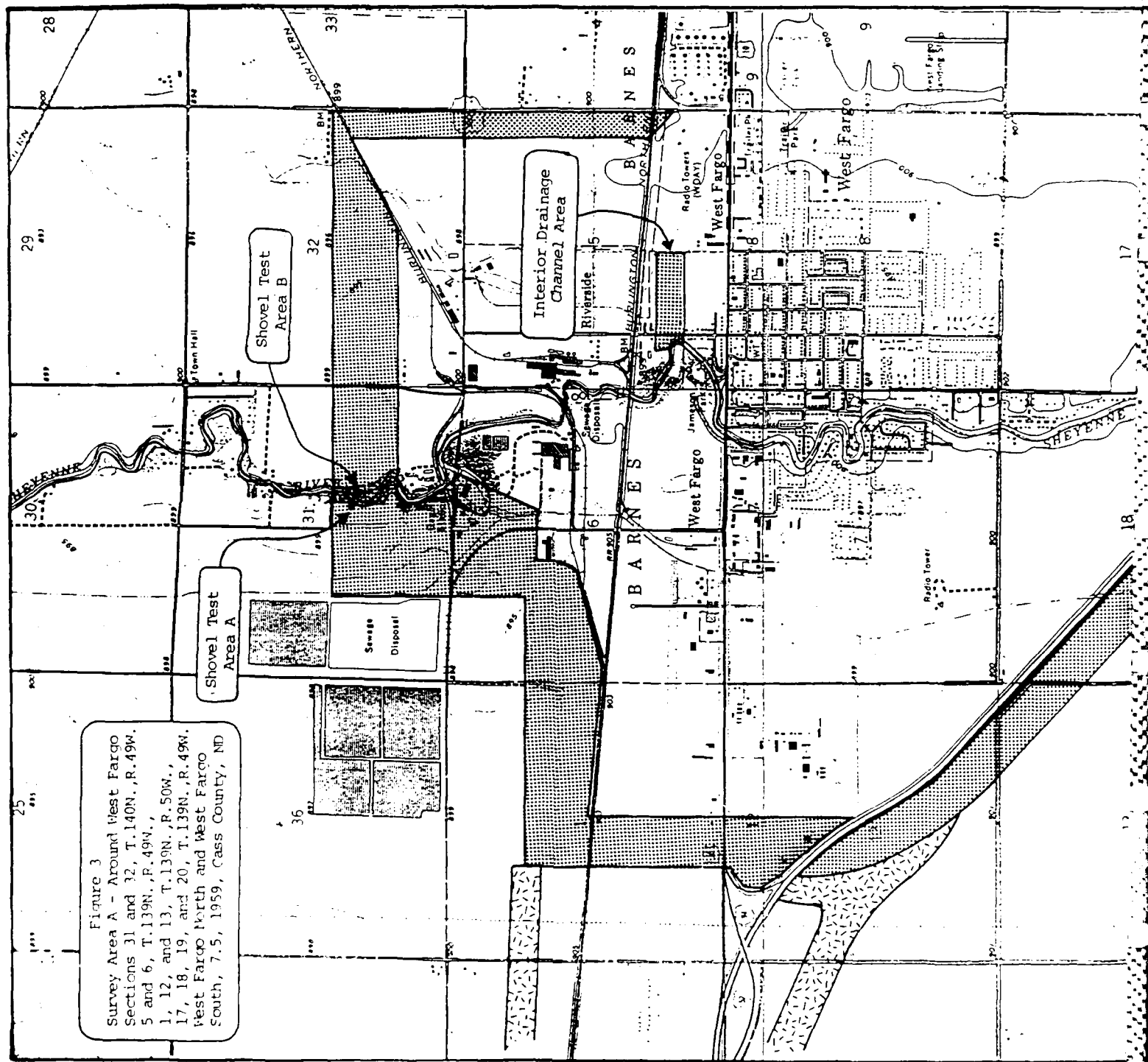
WEST FARGO, FLOOD CONTROL PROJECT

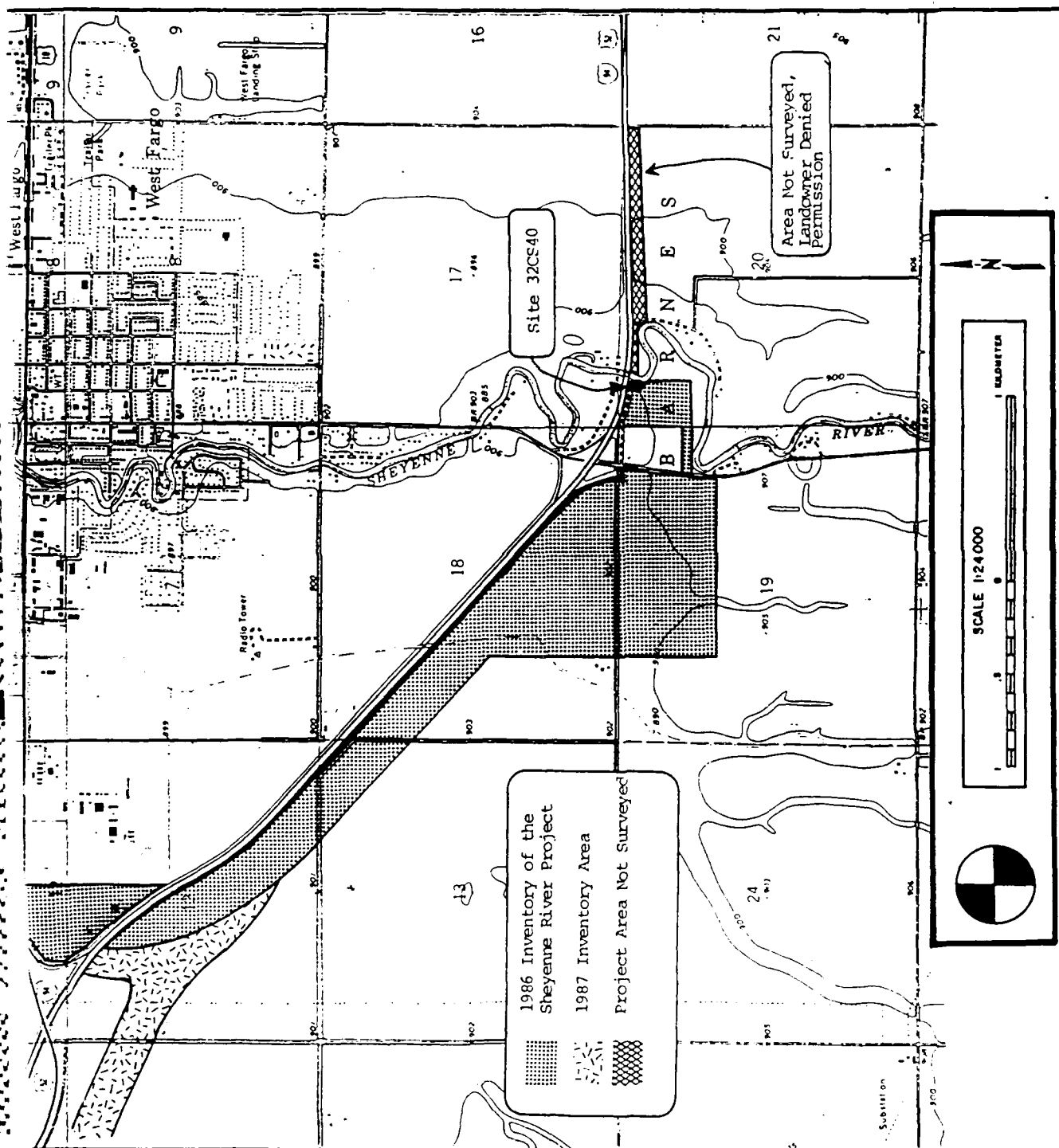
Figure 2



Project Area Maps

Figure 3
 Survey Area A - Around West Fargo
 Sections 31 and 32, T.140N., R.49W.
 5 and 6, T.139N., R.49W.,
 1, 12, and 13, T.139N., R.50W.,
 17, 18, 19, and 20, T.139N., R.49W.
 West Fargo North and West Fargo
 South, 7.5, 1959, Cass County, ND





Survey Area B is in the southern portion of the project. The major component to be built here will consist of a diversion channel near Horace, which is planned to be 320 ft wide and approximately 3.5 miles in length, totalling some 136 acres of land (ca. 55 hectares). The area surveyed is detailed in Figure 4. The alignment follows the county road along the west side of Sections 6, 7, 18 and 19, T.138N., R.49W., Cass County, North Dakota. At the time of the survey the entire area was cultivated, except for a small strip of woods by the river.

Survey Area C consists of a proposed new levee alignment, approximately 20,000 ft long and 600 ft wide, west of West Fargo. The new levee leaves the old alignment in Survey Area A in the SE1/4, SE1/4, NW1/4, Section 1, T.139N., R.50W., and heads west through the NE1/4 of Section 2, turning south and crossing the Burlington Northern Railroad tracks and Interstate Highway 94 through the middle of Section 2, then turning southeast in the NE1/4 of Section 11 it heads to the NE1/4, SW1/4 of Section 12, T.139N., R.50W., where it meets up with the old alignment adjacent to Highway 94 (see Figure 5). The area inventoried covered about 276 acres (ca. 112 hectares), all of which was under cultivation.

The Phase I inventory of Survey Areas A and B was conducted over the period of June 16-24 and June 29-July 1 of 1986 by Mervin G. Floodman and Nick G. Franke. Area C was inventoried by Mervin G. Floodman and Gregory S. Newberry from May 14-16, 1987. A total of 22 person-days of labor was expended on the survey. The field work was performed according to the contract scope-of-work (Appendix C).

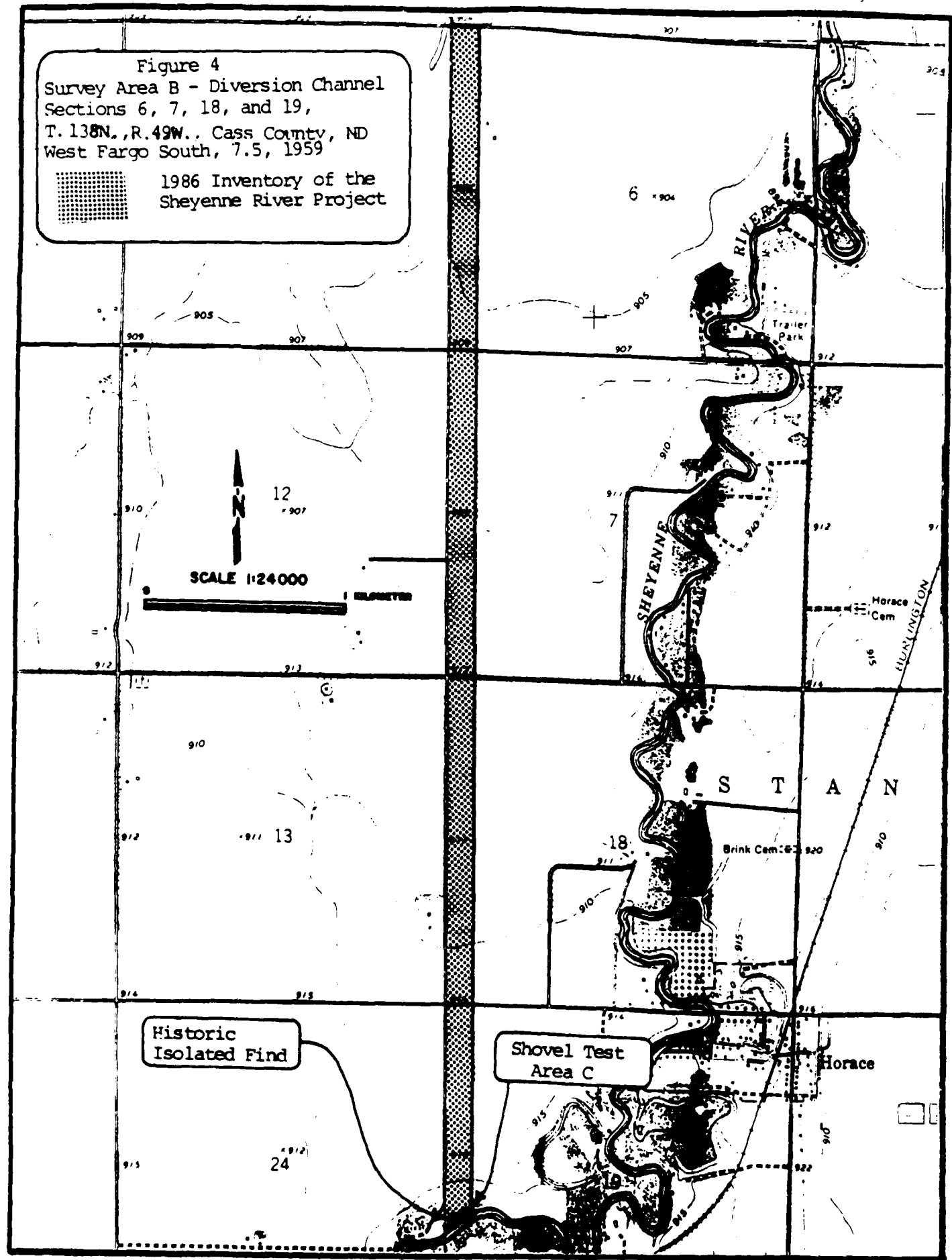
The field methodologies included surface survey, inspection of river cutbanks, subsurface shovel tests, and deeper probing using a soil auger to locate any cultural sites along project components. Laboratory analysis included the identification and description of all collected artifacts. The study of the lithic material was done by Mervin G. Floodman of Powers, while the ceramics were examined by Dr. Ann M. Johnson of the National Park Service. This report was written by Mervin G. Floodman, Principal Investigator, edited by Paul D. Friedman and typed by Sara L. Roberts of the Powers Denver office. All original records of the investigations are curated at the Denver office of Powers. A copy of the field notes are on file at the Corps, St. Paul District. All collected artifacts will be curated at the State Historical Society of North Dakota (SHSND) in Bismarck, with the Corps' permission.

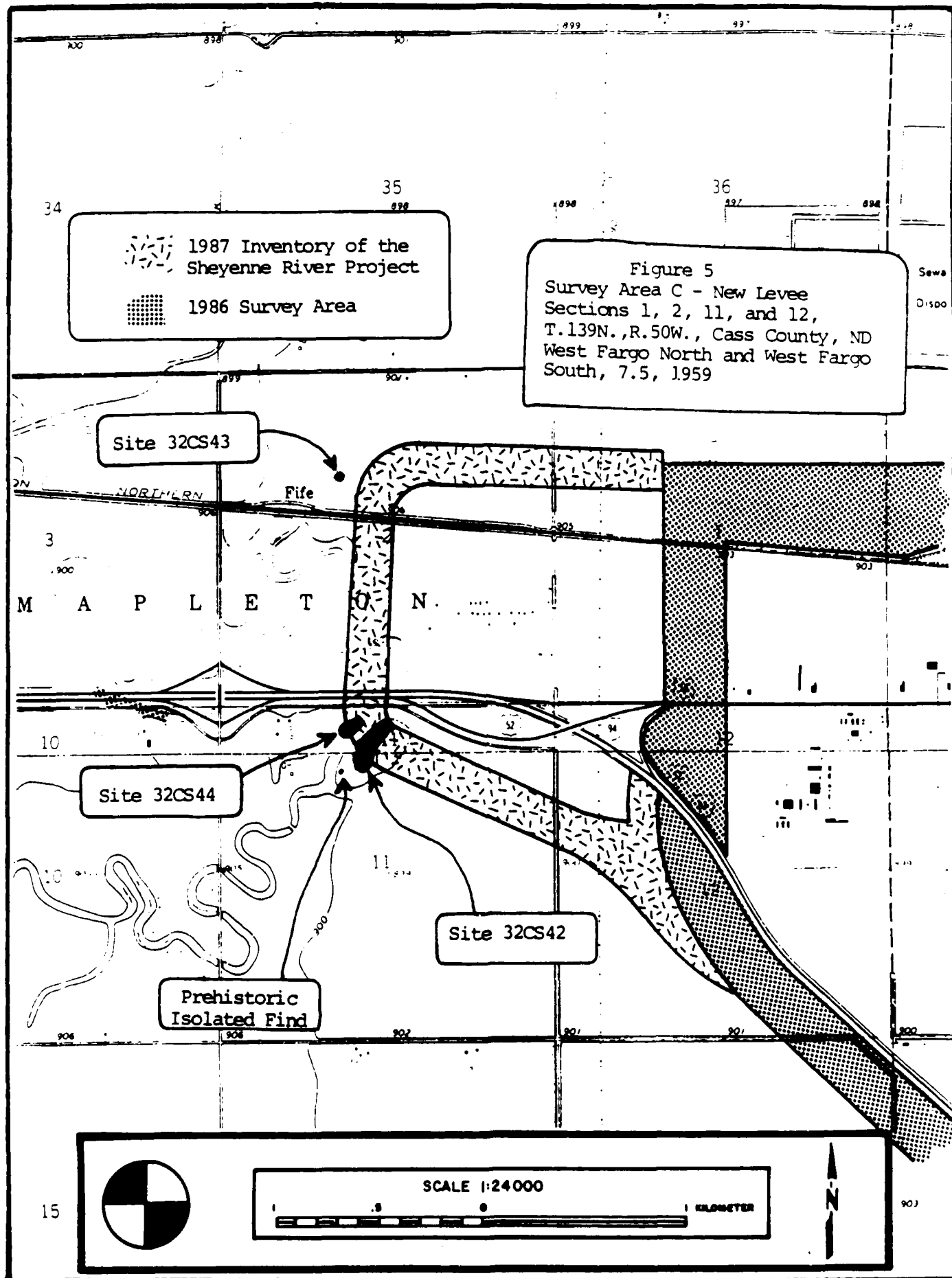
The following report presents a summary of previous archaeological and historic studies in the project area, describes the regional environment, gives a theoretical and

Figure 4
 Survey Area B - Diversion Channel
 Sections 6, 7, 18, and 19,
 T. 138N., R. 49W., Cass County, ND
 West Fargo South, 7.5, 1959



1986 Inventory of the
 Sheyenne River Project





methodological overview, describes the field methods utilized, presents the survey results, and evaluates the resources recorded. It also provides conclusions and recommendations for the future treatment of the cultural resources in the project area.

2.0 PREVIOUS ARCHAEOLOGICAL AND HISTORICAL STUDIES

The project area is within the cultural region Wedel (1961) defined as the Northeastern Periphery of the Great Plains. Further, it is found on the flat former floodplain of glacial Lake Agassiz, within the general Red River Valley. More specifically, it is located along the Sheyenne River, just south of its junction with the Red River. This region has not received as much archaeological attention as either the Middle Missouri area, with its village cultures, or the Little Missouri area, where so much energy related work has recently been conducted. Therefore, the Sheyenne River Valley still lacks a well defined cultural chronology, and minimal information about prehistoric patterns of settlement, subsistence, and technology exists. The following section will detail the findings of the files search, discuss previous archaeological work as revealed by a literature review, and present a cultural overview of the region.

2.1 FILES SEARCH

A files search of the specific project area was conducted on June 16, 1986 and April 10, 1987 by Nick G. Franke at the Division of Archaeology and Historic Preservation of the SHSND. The National Register listings, the site location catalog, the survey report catalog, the uncataloged survey reports and the relevant catalogued survey reports were consulted. The files search covered Sections 31 and 32, T.140N., R.49W.; Sections 4, 5, 6, 18, 19 and 20, T.139N., R.49W.; Sections 1, 2, 11, 12 and 13, T.139N., R.50W.; Sections 6, 7, 18 and 19, T.138N., R.48W., all in Cass County, North Dakota.

As of June, 1986, no cultural sites had been formally recorded in the project area, but four sites leads were on file. The site leads include the Fife Townsite/Northern Pacific Railroad Station recorded by Tweeton in 1978 for the North Dakota Legislative Council Regional Environmental Assessment Program (REAP) in the SE1/4, NE1/4 of Section 1, T.139N., R.50W. Also the Historic Canfield Railroad Station was reported by Raab in 1976 from the Andreas Historic Atlas of Dakota, 1884, located in the SE1/4, SE1/4, NE1/4 of Section 1, T.139N., R.50W. These two leads represent the same site gleaned from two different sources.

3

An historic rural school was reported by Raab in 1976 from the Andreas Historic Atlas of Dakota, 1884, located in the NW1/4, NW1/4 of Section 32, T.140N., R.49W. This site lead actually lies outside of the survey area.

Raab also reported a second historic rural school from the Andreas Historic Atlas of Dakota. This school is located in the NW1/4, SE1/4, NE1/4 of Section 19, T.138N., R.49W., and is outside of the project area.

The above site leads were compiled from documentary records. Two on-the-ground cultural resource surveys were on file for portions of the project area. Neither survey recorded cultural materials or sites within the researched project location.

The first survey was of selected portions of the Lower and Middle Sheyenne River Basin done by Rain Vehik (1979), cataloged as Ms #222 in the SHSND files. Also relevant are Ms #219 and #147, which are field reports of the same survey. Vehik covered portions of Sections 6, 7, 18, 19, T.138N., R.49W.; Sections 6, 18, 19, T.139N., R.49W.; and Section 13, T.139N., R.50W. The report is unspecific as to which portions of the sections were surveyed and no U.S. Geological Survey (USGS) topographic quadrangle maps were included to show the inventoried areas. It is not known if the current project overlaps the areas surveyed by Vehik. No cultural materials or sites were recorded by Vehik.

The second survey report was of an archaeological inventory of a sewage lagoon in Reed Township by Michlovic (1979a). The report is Ms #635 in the SHSND files. The survey covered a portion of the SW1/4, NW1/4 of Section 31, T.140N., R.49W., and is just outside the current project area. Again, no cultural materials or sites were recorded.

In 1986, apparently at about the same time as the Powers survey was taking place, Moorhead State University, under the direction of Michael Michlovic, had an archaeological crew in the field. This survey resulted in the location of one site in the vicinity of the present project. Site 32CS33, a small scatter of two lithics and four ceramic artifacts, was recorded in the W1/2, SW1/4, NE1/4 of Section 18, T.138N., R.49W. This site appears to be located on the east bank of the Sheyenne River, about half a mile east of the diversion channel corridor of Survey Area B, north of Horace (Michlovic 1987).

2.2 LITERATURE REVIEW

Some of the first archaeological work in the region focused on burial mounds. As early as 1867 D. Gunn (1868) opened

a mound on the Red River near Winnipeg, Canada, and discovered several human skulls together with artifacts such as stone pipes and shell beads. In the 1880s and 1890s T.H. Lewis (1886) conducted surveys of mound sites in the Midwest and the Red River Valley. From a gravel quarry exposed in 1908 near Arvilla, North Dakota, a burial mound complex was reported by Jenks (1932) that is now associated with a number of sites in the Red River Valley (Syms 1982). Johnson (1962) undertook a survey of the Minnesota side of the Red River Valley that emphasized the Arvilla complex, but his results also pointed out that other kinds of prehistoric sites could be found in the Lake Agassiz Basin.

While archaeologists in the United States continued to be fascinated with burial mounds, Canadian scholars were excavating habitation sites on the lower Red River. R.S. MacNeish (1958) published on investigations at Larter and Lockport near Winnipeg, and Cemetery Point on the Whiteshell River.

Other important studies of the archaeological resources along the Red River in the United States have recently been conducted by Moorhead State University. In 1978, under a grant from the Minnesota Historical Society, a portion of Clay County, Minnesota, was surveyed. The inventory included 137 40 acre plots (5,480 acres total) to sample four natural strata of the Lake Agassiz plain: 1) river bottoms; 2) beach ridges; 3) strandlines intersected by streams; and 4) open prairies. The survey recorded 44 archaeological sites, spanning from Paleoindian to Late Prehistoric times. The majority of sites were found along the major streams, such as the Red and Buffalo Rivers. Few sites were found in the open prairie away from the rivers and bench ridges. No sites away from the rivers contained pottery, indicating that the more complex camp sites were situated closer to permanent water sources (Michlovic 1979b).

In 1980 Moorhead State University undertook additional archaeological investigations on the east side of the Red River, in Norman County, Minnesota, immediately north of Clay County (Michlovic 1981). The survey covered 2,350 acres on the flood plain adjacent to the river. It recorded 28 new prehistoric sites and two isolated finds. Twenty-five of the sites were located in loops of the river. Projectile points collected were diagnostic of Late Woodland and Late Prehistoric cultures. The lithic assemblage was dominated by Swan River Chert, representing 38% of the collected stone artifacts. Pottery was the most common artifact type found during the survey, with Sandy Lake being the most numerous style.

Two sites located during the 1980 Norman County survey were test excavated by Moorhead State University. At 21NR11 cultural materials were found between 10-30 cm in a black silty clay of the Wahpeton series of the Fargo association. Unnotched triangular projectile points were recovered with Sandy Lake ware ceramics. 21NR9 was a multi-component site, with a Sandy Lake upper component present to about 30 cm, and a lower cultural level between 50 and 100 cm yielding bison bones, lithics, and charcoal. Two radiocarbon dates placed this lower component between 2710 ± 110 and 4330 ± 115 years B.P. (ca. 760-2380 B.C.), which would represent an Archaic period series of occupations. This survey illustrated that the Red River Valley was most intensely utilized by prehistoric peoples during Late Woodland times, but there is also the potential for older sites to be found deeply buried (Michlovic 1981).

The Mooney site (21NR29), on the Red River near Halstad, Norman County, Minnesota, was excavated by Moorhead State University, under a contract with the St. Paul District of the U.S. Army Corps of Engineers, in 1983. This was a stratified multi-component site. The upper component, found to 60 cm, was a Late Woodland occupation, characterized by Sandy Lake pottery, with some Plains Village types also present, estimated to date to ca. A.D. 1000, according to thermoluminescence dating of some of the ceramics. A deeply buried Archaic period occupation was defined at about 160 cm, which was radiocarbon dated to about 1460 B.C. (Michlovic 1985).

In 1986 Moorhead State University performed archaeological investigations, under a contract with the SHSND, along a strip in southern Cass County, North Dakota, to sample a portion of the Red River Valley (Michlovic 1987). The purpose of the study was to examine sections of the Lake Agassiz plain, test levee and fan deposits, and compare the results with the previous work conducted on the Minnesota side of the Red River Valley. A pedestrian inventory was conducted of 3,200 acres, with sample units consisting of 20 40 acre blocks along rivers, 10 160 acre blocks throughout the former lake basin, and five 160 acre sections on former beach ridges, chosen at random. In total, 800 acres were inventoried on river levees, 1,600 acres on the open plains, and 800 acres on former beach ridge deposits. The survey resulted in the location of 10 sites, all of which were prehistoric artifact scatters. Eight of these sites were located on levees of major streams, such as the Red, Sheyenne, Maple, and Wild Rice rivers. One site was discovered in a former stream channel scar, while only one site (32CS34) was recorded on the flood plain away from water. No sites were found on the former beaches of glacial Lake Agassiz. All of the sites were assigned to the Woodland period, with Sandy Lake and

Northeastern Plains ceramics being present at several locations.

Three areas were chosen for testing. Two were archaeological sites on river levees, and the third was a portion of fan deposits near Leonard, North Dakota, where the former shoreline of glacial Lake Agassiz had eroded sediments laid down by the old Sheyenne delta. One of the archaeological locations tested, the Dahnke site (32CS29), was situated at the junction of the Sheyenne and Red rivers. A two by two meter unit and a two meter square unit were excavated, and a series of three terraces were probed. Materials recovered included 175 lithic items, 552 potsherds, and 7,373 pieces of bone. The lithics included Knife River flint, Swan River chert, Tongue River silica, and other materials. The bones represented large and small mammals and fish. Over 100 seeds were recovered, including chokecherry, hackberry, acorn, hazelnut, and amaranth. At least two cultural components were identified. The youngest, found just below the plow zone, was a Late Woodland occupation association with Sandy Lake ceramics. The older deposit, buried about 60 cm deep, was a Early Woodland/Late Plains Archaic manifestation, including a Besant point and non-diagnostic pottery, radiocarbon dated between 2200 ± 60 and 1860 ± 80 B.P. (ca. 310 B.C. - A.D. 170). The auger probes proved that the site was concentrated on the middle terrace.

The Wichman site (32CS30), located within a loop of the Maple River, was tested with five two by one meter units. Most artifacts were found in the top 40 cm. Raw materials was dominated by Tongue River silica, followed by Swan River chert and Knife River flint. Lithic artifacts included 20 tools, three of which were small triangular points typical of the Late Woodland period. The ceramic collection totalled 372 sherds, representing at least 10 vessels. Some were classified as Sandy Lake, while others were called Northeastern Plains ware and appear similar to types found along the James River.

Five locations were selected for auger probing in the alluvial fan area. No cultural materials were found. However, three of the cores provided evidence of a buried A horizon, indicating that former land surfaces have been deposited away from the modern stream courses and that there is some potential for buried archaeological remains along the glacial Lake Agassiz beaches (Michlovic 1987).

Recent studies of the Sheyenne River Basin include Vehik's (1979) survey for the proposed Kindred Dam project. This inventory recorded five historic and 56 prehistoric locations on the Lower and Middle Sheyenne River. The majority of the prehistoric sites appear to date from the Late Woodland and Late Prehistoric periods. In 1985 the

University of North Dakota (UNDAR) conducted a survey on the Sheyenne River Valley and recorded 102 sites. Of these, 57 had prehistoric components while 45 had historic components. Cultural manifestations included the Archaic, Woodland, Plains Village, and Historic periods (Haury and Schneider 1986). While Vehik's (1979) survey may have overlapped Powers' study area, the UNDAR inventory (Haury and Schneider 1986) was away from the present project.

2.3 CULTURAL OVERVIEW

The following cultural overview is based on several sources. Vehik and Vehik (1977) wrote a comprehensive literature review for the entire Sheyenne River Basin. Beckes and Keyser (1983) produced a local cultural synthesis for the Sheyenne National Grasslands of the Custer National Forest, near Lisbon. Also consulted was UNDAR's study of the Sheyenne River (Haury and Schneider 1986) and Michlovic's (1979b, 1981, 1983, 1985, 1987) work on the Red River. The cultural sequence for this region is composed of the Paleoindian, Plains Archaic, Plains Woodland, Plains Village, and Historic periods. These are briefly summarized and discussed below.

2.3.1 Paleoindian Period

This was a period characterized by what Willey (1966) called a "Big Game Hunting Tradition," an adaptation suited to the grassland environment of the Pleistocene. It is noted by the association of large lanceolate spear points with the remains of megafauna. Elsewhere on the Great Plains the Paleoindian period is divided into the Clovis, Folsom, and Plano stages (Jennings 1968). No evidence of the Clovis stage (ca. 10,000-9000 B.C.) is documented in the Sheyenne River Basin. The Folsom culture, dating from about ca. 9000 to 8000 B.C., is represented by a surface collection reported from the Sheyenne delta vicinity (Johnson 1962). Isolated specimens from Plano stage, from ca. 8000 to 6000 B.C., have been mentioned in the region, such as the Agate Basin projectile point found during the Moorhead State University survey along the Red River in Clay County, Minnesota (Michlovic 1979b).

No Paleoindian sites have been excavated in eastern North Dakota, and Schneider (1982a) reported only four isolated finds of Paleo points from the Sheyenne River Valley. Michlovic (1987) believes that evidence of early human habitation in the Red River Valley may have been erased by several different natural forces, including the highly acidic ancient soils resulting from the pre-Pleistocene spruce forest and the meandering of the river during the Altithermal. It is thought that along the river levees

Paleo sites may be very deeply buried, and remains from this period might only be found at the eroded fan deposits along the former glacial Lake Agassiz beaches.

2.3.2 Plains Archaic Period

The Plains Archaic period is noted for a subsistence pattern relying on hunting and gathering activities. Projectile points tend to have hafting notches near the base and were made as darts for atlatls. Ground stone tools associated with vegetal food processing provide evidence of seed and wild plant gathering, as does the appearance of rock lined fire pits. Stone circles and bison kills are relatively common kinds of Archaic sites known from the Great Plains.

Frison (1978) divided the Archaic period on the Northwestern Plains into the Early, Middle and Late stages. Early Archaic cultures include the Mummy Cave complex and the Oxbow complex, dating from approximately 6000 B.C. to 2500 B.C. The Middle Archaic stage, dating from about 3000 B.C. to 500 B.C., is associated with the McKean complex. The Late Archaic stage is identified with the Pelican Lake and Besant phases, dating from about 1500 B.C. to A.D. 500.

On the Northeastern Plains, the Swan River site and Itasca bison kill provide evidence of Early Archaic cultures. (Reeves 1973). At the type site on the Souris River in southeastern Saskatchewan, the Oxbow complex was dated to about 3250 B.C. (Nero and McCorquodale 1958). Moorhead State University reported numerous Oxbow and Parkdale Eared points from private collections on the Minnesota side of the Red River (Michlovic 1979b). The earliest levels of the Lockport and Cemetery Point sites, on the Red River in Canada, produced McKean materials (McNeish 1958). Pelican Lake and Besant points have been noted in private collections in Clay County, Minnesota (Michlovic 1979b).

According to Vehik and Vehik (1977), Archaic period sites are not common in the Sheyenne River Basin. The UNDAR survey along the Sheyenne River recorded six sites with Plains Archaic components. Four of these sites were from upland contexts and two came from the first terrace above the Sheyenne River (Haurly and Schneider 1986).

Johnson (1964) associated Archaic habitation in the Red River Valley with the so-called Old Copper complex. At the Canning site (21NR9) on the Red River in Norman County, Minnesota, an Archaic bison processing station with McKean complex artifacts was defined. The nearby Mooney site (32NR29) yielded an Archaic period date, in conjunction

with bison bone fragments and lithic debitage (Michlovic 1981). A Besant point was recovered at the Dahnke site at the mouth of the Sheyenne River (Michlovic 1987). The work by Moorhead State University indicates that there is some potential for finding buried Archaic age sites adjacent to major streams.

2.3.3 Plains Woodland Period

The Woodland period is characterized by the appearance of ceramics, elaborate mortuary practices and burial mounds, larger and more complex habitation sites, the beginning of formative cultures with evidence of domestic agriculture, and trade goods. Projectile point technology evolved to the use of small triangular forms with the introduction of the bow and arrow. The Woodland period can be subdivided into three stages: Early, Middle and Late.

There is little direct knowledge of Early Woodland cultures utilizing the region (Vehik 1979; Beckes and Keyser 1983). The Dahnke site in Cass County, with a buried unspecific ceramic level radiocarbon dated between 310 B.C. and A.D. 170 could be considered an Early Woodland occupation (Michlovic 1987).

The Middle Woodland stage (about 100 B.C.-A.D. 900) is better represented in the Sheyenne River Basin. Two Middle Woodland cultures have been defined in eastern North Dakota: the Laurel complex and the Sonota complex. Several of the sites excavated by Milligan near Lisbin, North Dakota may be tied to the Sonota complex (Neuman 1975). At a habitation site adjacent to a group of mounds near Lake Bronson in Minnesota, Laurel ceramics were found in a context with bison bones and a hearth, radiocarbon dated to ca. A.D. 105 (Anfinson et al. 1978).

Late Woodland cultures on the Northeastern Plains (from ca. A.D. 600-1800) include the Arvilla burial complex, and the Blackduck and Sandy Lake horizons (Symms 1977). Both the Arvilla culture (Syms 1982) and Sandy Lake sites (Michlovic 1981, 1983, 1987) are well known in the Red River Valley, while Blackduck is found predominantly in Minnesota, Manitoba, and Ontario. Sandy Lake occupations in the Red River Valley have been dated from ca. A.D. 1000 at the Mooney site to ca. A.D. 1550 at the Shea site (Michlovic 1981, 1987). On the lower Red River, MacNeish (1958) used Blackduck pottery as one of the traits for his Manitoba focus, estimated to date around A.D. 1400.

Woodland sites constitute over half of Vehik's (1979) inventory in the Sheyenne River Basin. Thirteen Woodland sites were recorded by UNDAR during their Sheyenne River survey (Haury and Schneider 1986). Of these, five could

be identified as either Middle or Late Woodland components. Six of the Woodland sites were located on the flood plain, four on river terraces, one on the first terrace, and two in uplands contexts. During the Moorhead State University survey along the Red River in Norman County, Minnesota, all the sites found were ceramic bearing and Sandy Lake ware dominated the pottery collection (Michlovic 1981). Sandy Lake ware was also commonly found at sites recorded by Moorhead State University in Cass County, North Dakota (Michlovic 1987).

2.3.4 Plains Village Period

The Plains Village period began about A.D. 1000 and lasted until European contact. This period is marked by horticultural practices, the introduction of new ceramic vessel forms and decorations, and a sedentary lifeway evidenced by earth lodge villages. During this period the protohistoric Mandan, Hidatsa, Arikara and Cheyenne tribes emerged in North Dakota.

The Plains Village period is not well known in the Red River Valley. Michlovic (1981) mentioned designs on body sherds collected at sites along the Red River in Minnesota which suggested relationships with the Middle Missouri Tradition. At the Mooney site in Minnesota ceramics not attributable to Sandy Lake ware were described as a variation of Plains Village types (Michlovic 1985). Michlovic (1987) has classified these sherds, along with ceramics from the Wichman site in Cass County, North Dakota, as Northeastern Plains ware. They have similarities to late period pottery found along the James River. Schneider's (1982b) Periods 3 and 4 on the James River correspond to the Plains Village pattern. The Henderson III site, south of Jamestown, is a small fortified earth lodge village radiocarbon dated between A.D. 1365 and 1525. Ceramics from Henderson III are comparable to the Stutsman focus, as defined by Wheeler (1963), as well as types known from the Schultz site on the Sheyenne River. On the Maple River in Cass County, North Dakota, the Shea site is a small fortified village, where remains of corn were found, together with a ceramic collection which included Sandy Lake ware. This site has been radiocarbon dated to A.D. 1560 (ca. 390 B.P.) (Michlovic 1987).

On the Sheyenne River the Biesterfeldt site (Strong 1940) can also be assigned to the Plains Village period. This site, which is believed to have been occupied by the Cheyenne tribe, dates to ca. A.D. 1700 and contains Euro-American trade goods. Vehik (1979) recorded 14 Plains Village sites in Ransom County, North Dakota. Haury and Schneider (1986) specifically identified four cultural

material scatters on the Sheyenne River as Plains Village occupations. Another site had ceramics with characteristics of both the Plains Village and Late Woodland periods. Eight sites noted as Late Prehistoric may also be associated with the Plains Village pattern. Of the four identified Plains Village components, three were on the flood plain and one was on the first terrace.

2.3.5 Historic Period

North Dakota's Historic period was divided into two stages by the UNDAR investigators of the Sheyenne River Valley. The first stage consists of initial Euro-American exploration and the fur trade era, beginning in the early eighteenth century and continuing to the creation of the Dakota Territory in 1861. The second stage was characterized by homesteading activities after 1861 and continuing through World War I and the second decade of the twentieth century (Haury and Schneider 1986).

Vehik (1979) recorded only five historic sites on the Sheyenne River. UNDAR, in their survey on the Sheyenne, recorded 45 historic sites. Three of these sites were assigned to the fur trade era. Twenty-nine of the historic sites recorded by Haury and Schneider (1986) were related to the homesteading stage. Michlovic (1987) noted no historic sites during the Moorhead State University work in Cass County, North Dakota.

3.0 ENVIRONMENTAL BACKGROUND

Cass County is located on the extreme eastern edge of North Dakota. Its eastern boundary is the Red River of the North, representing the Minnesota/North Dakota state line. The city of West Fargo straddles the banks of the Sheyenne River as it flows northeasterly to the Red River.

3.1 PHYSIOGRAPHY

Most of Cass County, roughly the eastern three-quarters, is located within the Red River Valley of the Central Lowlands. The term Central Lowlands refers to the area covered by tall grass prairie prior to settlement, as opposed to the western portion of the state which was covered by short to medium grasses (Bluemler 1977).

The Red River Valley occupies a strip of land about 40 miles (65 kilometers) wide on the eastern margin of North Dakota. It is a relatively flat plain resulting from sedimentation on the floor of glacial Lake Agassiz. More than 95% of the area is gently sloping (slopes of less than

eight percent) and local relief is less than 25 ft (8 m) in most areas (Bluemle 1977).

The Red River flows north from Lake Traverse in Minnesota to Lake Winnipeg in Canada. Its major western tributaries are the Sheyenne and Pembina Rivers, draining parts of eastern North Dakota. The Red River Valley has a low gradient of about 1 m/3 km south to north and 1 m/2 km east to west. Within the valley is the meandering river, and a wooden belt which surrounds it, about 1.5 km wide (Michlovic 1987).

The terrain of the Red River Valley is broken by the escarpment of the Sheyenne River delta and the beaches of Lake Agassiz. The Sheyenne delta covers 60 square miles (155 square kilometers) in the southcentral portion of Cass County. Northeast of Leonard, it rises 75 to 100 ft (23 to 30 m) above the former lake plain. To the west, it merges with the Maple River delta and the shore deposits of glacial Lake Agassiz. The surface of the Sheyenne delta is flat, with local relief of less than five ft (ca. 2 m) typical (U.S. Department of Agriculture 1983).

About 480 square miles (124 square kilometers) in the western part of Cass County are glaciated plains. The glaciated plains consist of gently rolling landscape. More than 80% of this area has relief less than 100 ft (30 m), but ranges from 100 to 300 ft (30 to 90 m) in places (Bluemle 1977).

3.2 GEOLOGY

About 130 m beneath the Red River Valley are metamorphosed lavas and granites created by ancient orogenic episodes, over two billion years old. On top of these rocks are Paleozoic and Mesozoic limestones, sandstones and shales, formed when the region was once covered by a shallow sea (Michlovic 1987). The early Red River Valley was shaped several million years ago as a narrow, shallow valley whose axis was several miles east of its current location. Originally, Dakota Group sandstone was exposed at the surface of the valley. The upward movement of ground water in the area of springs helped initiate the formation of the valley. During the Tertiary, streams heading east from the recently uplifted Rocky Mountains were shifted northward towards the Arctic Ocean. These northern flowing streams began to broaden the Red River Valley.

With time, the ancestral Red River eroded its way to the Precambrian rock of the Canadian Shield. The river then migrated literally to the west where the Precambrian rock was found at greater depth. As it moved westward, it carved away the softer shale and sandstone. The west wall

of the valley was marked by springs where the Dakota Group aquifers and, as erosion continued, the Lower Paleozoic aquifers, were exposed. Seepage from these springs transported sediment to the river. This resulted in the formation of the steep-sided Pembina Escarpment.

The face of the Pembina Escarpment was eroded and steepened by glacial ice during the Pleistocene epoch. During early Wisconsin times (ca. 70,000 B.P.) ice advanced into the Red River Valley from the northeast, depositing pebble loam formations referred to as Unit A, Sebeka, and New York Mills. In late Wisconsin times the Des Moines lobe of the Laurentide ice sheet advanced from the northwest and deposited pebble loams noted as the Dunvilla, Barnsville and Hawley formations. The total maximum thickness of these deposits in Cass County, North Dakota is about 113 m (Klausing 1966).

The river valley was filled by melting waters of the glaciers as they retreated. Lake Agassiz was formed about 13,500 B.P. out of several smaller proglacial lakes. The modern floor of the Red River Valley was shaped by the sedimentation of glacial Lake Agassiz. Some 100 ft of clay and silt was deposited on the lake bed. Along the margins of the lake wave action formed beaches of glacial till and other near-shore deposits of sands and gravels (Harrison 1968).

The West Fargo flood control project area lies entirely within the flat, almost featureless Red River Valley. The modern Red River flows on top of the old bed of Lake Agassiz (Bluemle 1977). The Sheyenne River also flows along the top of the glacial lake plain. Geologic deposits found along the Sheyenne River are referred to as the Walsh Group. This consists of Holocene sediments. The area is characterized by river and stream alluvium intermittently deposited since the Pleistocene, with silts, fine sands, and coarse sands, with considerable detritus in places.

The surrounding plain consists of Pleistocene sediments of the Coleharbor Group. In level areas this includes flat-bedded clay, silt and sand deposited on the former floor of Lake Agassiz. Present in the western portion of Cass County, between the glaciated plain and the flat lake bed, are gravels and sands, commonly clean and well sorted, representing beach sediments along the shore lines of glacial Lake Agassiz. Well developed beach ridges occur in places, but in other areas the shore sediment is simply sands and gravels of little relief. At first a series of poorly developed strandlines, known collectively as the Herman beach, was formed at the 1,060 ft elevation along the shore of glacial Lake Agassiz. Later, a well

established shoreline, known as the Campbell beach, developed at 980 ft (Perkins 1977).

Also present are poorly sorted, silty gravel and sand, representing delta sediment deposited by the Maple and Sheyenne Rivers as they emptied into Lake Agassiz. Discharge of sandy sediments into the glacial lake by an enlarged Sheyenne River created an 800 square mile plateau known as the Sheyenne delta. During the period of the Campbell beach wave action eroded the deltaic deposits forming a well defined scarp. At the base of this beach/delta interface alluvial fans developed (Michlovic 1987). Topography of the Sheyenne delta is flat to hilly, with some wind blown dunes (Blumle 1977).

3.3 SOILS

In the center of the Red River Valley are fine textured soils of clay and silty clays. On the former beaches of Lake Agassiz are medium textured soils which include sand and gravel deposits. Beyond the beach deposits are medium textured soils developed on glacial till. The soils are calcareous, and a typical exposure reveals a deep, dark topsoil characteristic of prairie mollisols. Buried A horizons can be found in the alluvial sediments, and paleosols have been radiocarbon dated between 4,300 and 1,000 years old (Michlovic 1987).

The soils of the project area were identified using the U.S. Department of Agriculture (1983) Soil Survey for Cass County, North Dakota. This indicated that while many different soil units exist, the most common type is the Fargo series. The Fargo series consists of deep, poorly drained, slowly permeable soils on glacial lake plains. These soils are formed on fine textured lacustrine sediments, and slopes range from zero to three percent. The top seven inches of this soil is typically a black silty clay. Below this for another 10 inches is more black silty clay. Sixteen inches below the second level is a very dark gray silty clay.

Fargo soils are commonly adjacent to Cashel, Dovray, Enloe, Hegne, Ryan, and Wahpeton soils. Cashel soils are found on flood plains, stratified below the surface layer. Dovray and Wahpeton soils have a mollic epipedon that is more than 24 inches thick. Dovray soils are in depressions. Enloe soils have an albic horizon and are also in depressions. Wahpeton soils are on flood plain levees. Hegne soils are usually in higher positions than the Fargo soils, and have a layer of accumulated lime within a depth of 16 inches. Ryan soils contain salts and have a natric horizon.

3.4 FLORA

Around 11,500 B.P. the deglaciated plains on the perimeter of Lake Agassiz supported a spruce-deciduous parkland, with sagebrush ground cover. By 10,000 B.P. a grassland prairie began to intrude from the west, becoming the dominant vegetation by ca. 7,200 B.P. Today the Red River Valley can be characterized as basically a tall grass prairie, with a gallery forest of elm, oak, ash, hackberry, cottonwood, and aspen along the major streams. Archaeological evidence indicates that prehistoric people along the Red River Valley utilized chokecherry, hackberry, acorn, hazelnut, and amaranth, among other wild vegetal foods (Michlovic 1987).

The project area falls within the Northern Floodplain forest vegetational zone along the river. The surrounding prairie contain Bluestem Prairie vegetation. These vegetational zones, as defined by Kuchler (1964), are summarized below.

3.4.1 Northern Floodplain Forest

The physiognomy is low to tall broadleaf deciduous forest, open to dense, often with lianas. This vegetation zone extends from North Dakota to Oklahoma. Dominant species are cottonwood (Populus deltoides), black willow (Salix nigra), and American elm (Ulmus americana). Other components include: boxelder (Acer negundo), red maple (A. rubrum), silver maple (A. saccharinum), and river birch (Betula nigra) in the eastern part; hackberry (Celtis occidentalis), white ash (Fraxinus americana), green ash (F. pennsylvanica), honey locust (Gleditsia triacanthos), black walnut (Juglans nigra), and American sycamore (Platanus occidentalis) in the southern part; and Plains cottonwood (Populus sargentii), sumac (Rhus sp.), peach and sandbar willows (Salix amygdaloides; S. interior), and slippery elm (Ulmus rubra).

3.4.2 Bluestem Prairie

The physiognomy is dense vegetation of tall grasses and many forbs. The occurrence of this vegetation zone is from North Dakota and Minnesota southward to Oklahoma. Dominant species are big bluestem (Andropogon gerardii), little bluestem (Andropogon scoparius), Switchgrass (Panicum virgatum), and Indiangrass (Sorghastrum nutans). Other components include: leadplant (Amorpha canescens), field pusseytoes (Antennaria neglecta), asters (Aster ericoides; A. laevis), sideoats grama (Bouteloua curtipendula), daisy fleabane (Erigeron strigosus),

sunflower (Helianthus grosseserratus), prairie junegrass (Koeleria cristata), gayfeathers (Liatris aspera; L. punctata; L. scarriosa), phlox (Phlox pilosa), scurfpeas (Psoralea argophylla; P. floribunda), coneflowers (Ratibida columnifera, R. pinnata), wild rose (Rosa arkansana), goldenrods (Solidago altissima; S. missouriensis; S. rigida), dropseed (Sporobolus heterolepis), and porcupine grass (Stipa spartea) in the northern part.

3.5 FAUNA

Bison were the most important large game animal sought as a food source by the prehistoric people who inhabited the region. Faunal remains from archaeological sites in the Red River Valley include bison, elk, deer, squirrel, gopher, skunk, beaver, muskrat, dog, racoon, badger, duck, hawk, coot, pigeon, turtle, pike, catfish, sucker, sunfish, walleye, and drum (Michlovic 1987).

The Red River Valley today provides habitat for a variety of animal species. Grizzly bear (Ursus horribilis), bison (Bison bison), elk (Cervus canadensis) and moose (Alces alces) formerly inhabited the area. Other large mammals include white-tailed deer (Odocoileus virginianus). Smaller mammals include jack rabbit (Lepus townsendi) and ground squirrel (Citellus richardsoni). Predators include longtailed weasel (Mustela frenata), red fox (Vulpes fulva), and coyote (Canis latrans). Semi-aquatic species include beaver (Castor canadensis), muskrat (Ondatra zibethica), and mink (Mustela vison) (Baily 1926).

Waterfowl is plentiful, including Canada goose (Branta canadensis), mallard (Anas platyrhynchos), green-winged (Anas carolinensis), and blue-winged (Anas discors) teals, northern shoveler (Spatula clypeata), pintail (Anas acuta), redhead (Aythya americana), and wood duck (Aix sponsa), to name a few. Other avian species present include killdeer (Charadrius vociferus), great horned owl (Bubo virginianus), sharp-tailed grouse (Pedeoecetes phasianellus), and ring necked pheasant (Phasianus colchicus).

3.6 CLIMATE

Cass County has a continental climate. The weather is usually warm in summer and winters are very cold. Average winter temperature is 20°F and the average minimum temperature is 11°F. Snowfall is usually light and blows into drifts leaving much of the ground free of snow. Average seasonal snowfall is 31 inches. In summer the average temperature is 68°F with a maximum daily temperature of 82°F. Total annual precipitation is 20

inches. Sixteen inches, or 80% of the annual precipitation, falls between April and September. Average relative humidity is 60%. Prevailing winds are from the north, with the average highest windspeed of 14 miles per hour in the spring (U.S. Department of Agriculture 1983).

4.0 THEORETICAL AND METHODOLOGICAL OVERVIEW

A primary goal of the Corps in initiating and administering the Phase I cultural resources investigation of the project area was to partially fulfill its obligations regarding cultural resources as set forth within the National Historic Preservation Act of 1966 (Public Law [PL] 89-665), as amended; the National Environmental Policy Act of 1969 (PL 91-190); Executive Order (EO) 11593; the Archaeological and Historical Preservation Act of 1974; the Advisory Council on Historic Preservation "Regulations for the Protection of Historic and Cultural Properties" (36 CFR Part 800); and the application of Corps regulations (ER 1105-2-50). This cultural resources investigation can contribute to other Corps goals as well. It can be a planning tool, identifying resources requiring additional investigations, or with the potential for public use development, and serve as a scholarly document (U.S. Department of the Army 1986).

The objectives of Powers in undertaking the inventory were the identification of cultural resources within the proposed project area, their evaluation in terms of criteria for nomination to the National Register of Historic Places (NRHP) as set forth in 36 CFR Part 60.4, and the assessment of potential adverse impacts caused by the project on any significant sites. A theoretical concern was to provide an intellectual framework for the proper interpretation and evaluation of cultural resources located in the project area.

The flood control project inventory covered an area of approximately 1,500 acres (ca. 607 hectares) located along the Sheyenne River, near the city of West Fargo, North Dakota. The Sheyenne River is essentially an eastward flowing tributary of the Red River of the North. The entire project area is within the Red River Valley physiographic region of the Central Lowlands. The Red River Valley is a flat plain occupying, the former bed of glacial Lake Agassiz. The Central Lowland refers to the area dominated by tall grass prairie in eastern North Dakota. Wedel (1961) includes this region within the Northeastern Plains prehistoric cultural sphere. Relevant primary information about the nature of prehistoric and historic utilization of the region was obtained from files at the SHSND. The most useful sources for the regional overview of the Sheyenne River Basin were the reports by Vehik and

Vehik (1977), Vehik (1979), Beckes and Keyser (1983), and Haury and Schneider (1986), while the Red River Valley was discussed in work conducted by Moorhead State University (Michlovic 1979b, 1981, 1985, 1987).

Site density can be high along the Sheyenne River. Vehik (1979) recorded 56 cultural sites and Haury and Schneider (1986) recorded 102 cultural sites. An average site density of 1.1 to 0.9 sites per square kilometer was reported. The most recent archaeological survey of Cass County, North Dakota, by Moorhead State University (Michlovic 1987) reported 10 prehistoric sites in an inventory of 3,200 acres, for a site density of one site per every half a section (320 acres), or 0.77 sites per square kilometer. Given these figures, the potential for locating sites in the West Fargo survey area was considered good.

A cultural chronology for the region was briefly outlined in Section 2.0. Based upon the evidence compiled by Vehik (1979), Haury and Schneider (1986), Michlovic (1979b, 1981, 1985, 1987) and others, some expectations about chronology and cultural affiliation were generated. To date, no Paleoindian sites have been excavated in the Red River Valley, although Johnson (1962) reported surface Paleo point finds from the Sheyenne delta. Michlovic (1987) believes that Paleoindian sites are either very deeply buried, or have been destroyed by river meandering. It was thought to be highly unlikely that any Paleoindian sites would be encountered during the current project.

While Archaic sites in eastern North Dakota are rare, the recent UNDA survey identified Middle and Late Archaic sites on terraces and uplands of the Sheyenne River (Haury and Schneider 1986). Michlovic (1981, 1985, 1987) pointed out the potential for finding deeply buried Archaic sites along the Red River. However, the likelihood of finding Archaic sites was considered low for the current project, because it examined only a small area on a flood plain.

Plains Woodland sites are the most common prehistoric resources in the region. Over half of the sites noted by Vehik (1979) and 13 sites recorded by Haury and Schneider (1986) can be placed in the Woodland period. In the survey of Norman County, Minnesota, Moorhead State University noted that all of the surface sites recorded had Woodland components, with most being assigned to the Sandy Lake horizon (Michlovic 1981). Likewise, their 1986 survey in Cass County, North Dakota recorded 10 sites, all of which were Woodland occupations. Four of the 10 sites had diagnostic artifacts which allowed for their cultural affiliation to be determined, and all were assigned to the Late Woodland period. Only one site from this study had the possibility of having an Early Woodland component, and

this was discovered only through excavation (Michlovic 1987). Based on these earlier studies of the region, it was expected that Early Woodland sites would be rare, while Late Woodland sites would be plentiful in the current project area.

Plain Village and/or Late Prehistoric complexes should also exist in the study area. It must be noted, as stated by Haury and Schneider (1986), that identification and separation of these later prehistoric components is difficult given the low density of ceramic materials, poor preservation of sherds, and the lack of excavated contexts for the placement of the ceramic cultures in the area. Michlovic (1983) pointed out the mixing of traits in the ceramic collections of the Red River Valley, indicating influences from the Plains Village pattern of the Middle Missouri area, as well as interactions with Woodland cultures from Minnesota.

Euro-American historic sites are also likely to be found in the region, given the nearness of the project area to an urban setting (i.e. West Fargo). Sites relating to the fur trade era should be rare, because these tended to be ephemeral camps, easily destroyed by the forces of nature. Historic sites associated with homesteading after 1861 should be common, since this was an urban area, intensely settled during the 1870s and 1880s (Robinson 1966).

It was expected that the typical site type in the project area would be prehistoric cultural material scatters. Burial mound complexes have been recorded in uplands overlooking the Sheyenne River (Vehik and Vehik 1977; Haury and Schneider 1986), and the Red River Valley is known to contain examples of the Arvilla burial mound complex (Syms 1982). However, since uplands are not present in the area Powers surveyed, the discovery of burial mounds was not anticipated. Bison kill sites, tipi rings, and petroglyphs, were also considered unlikely in the low, flat, cultivated river bottoms of the project area.

The research objectives employed by Powers aimed at locating, identifying and evaluating the cultural resources in the project area. Specifically, Powers attempted to determine the temporal and cultural affiliation of each site, and relate that to previously known data. Each site's function and activities were noted, and generalizations about site types and environmental location based on the survey were sought. It was hoped some basic understanding of regional settlement patterns would be forthcoming from this study.

After formulating the research objectives and conducting the files search, the project area was inventoried by conducting an intensive pedestrian survey and recording

all cultural resources observed. Sites were defined as more than two artifacts in proximity to each other, or the presence of a cultural feature. Isolated finds were defined as single artifacts lacking other associated cultural materials or contexts. In one case, several pieces of historic farm machinery was recorded as an isolated find. The kinds of information gathered during the survey included the number and types of resources present, site size, location, features, artifacts, cultural and temporal associations and inferred functions. The data collected were then compared to the stated expectations.

5.0 FIELD METHODS

The field methodologies utilized during the Phase I cultural resources inventory of the West Fargo flood control project are described below. The field methods included surface survey of areas where project components will be located, inspection of river cutbanks, subsurface shovel tests and a few deeper soil probes. These field methods were designed to meet the requirements of the scope-of-work (Appendix C) and locate cultural resources in the project area.

The first step in the field investigations consisted of the pedestrian survey. The project area was defined by reference to the USGS 7.5' topographic quadrangle maps, and specific engineering/air photograph maps provided by the Corps. Three separate survey areas, of differing dimensions, as determined by the proposed project components, were examined by Powers.

Survey Area A consisted of a large contiguous block encircling the communities of West Fargo and Riverside on the north, south and west (see Figure 3), covering about 1,079 acres (ca. 437 hectares). Most of this area was in cultivated fields of wheat, beans, corn, or fallow. These open fields were covered using a series of close-interval 15 m transects. Visibility in the fields was highly variable, depending on the type of the crop being grown. In general, visibility was adequate to excellent. Grassy and forested sections along the river in this block were surveyed using transects of 10-15 m intervals. All places offering good visibility were carefully inspected, including trails, bulldozed areas, erosional and deflation zones, rodent mounds, etc. In places along the river, the bank was inspected to gain knowledge of soils, check the potential for buried deposits, and seek evidence of eroding cultural sites.

The long narrow corridor of Survey Area B was covered using similar methods (Figure 4). This was a much smaller area of only about 136 total acres (ca. 55 hectares). The

entire survey area was cultivated except for a small wooded portion on the south edge by the river. Survey Areas A and B were inventoried by Mervin G. Floodman and Nick G. Franke in the period from June 16-24 and June 29-July 1, 1986.

Survey Area C was a corridor about 3.8 miles long (ca. 20,000 linear ft) and 600 ft wide, adjoining the western edge of Survey Area A (Figure 5). This entire survey area of about 276 acres (ca. 112 hectares) was in cultivated fields of wheat, beans, corn or fallow. This corridor was disturbed by modern construction where it crossed Interstate Highway 94, county roads and the Burlington Northern railroad. The proposed levee alignment was located on the ground using the USGS 7.5' topographic quadrangle maps, and a protractor and Brunton pocket transit to orient transects to visible landmarks or physical features. The area was inventoried by walking parallel transects spaced ca. 15 m apart. Visibility within the fields was good to excellent, given the immature stage the crops were in and the large fallow areas. Survey Area C was examined by Mervin G. Floodman and Gregory S. Newberry from May 14-16, 1987.

When cultural materials were located, they were pin flagged, which allowed for site boundaries to be delineated. Only lithic and ceramic artifacts were marked. Bone and cracked rock scatters were noted, but were not mapped due to the fact that these materials may be unrelated to the site's prehistoric occupation.

After a site boundary was determined, an arbitrary datum was established within the site area and artifacts were piece plotted using a Brunton pocket transit, metric tape and pacing. Only diagnostic materials, such as projectile points, ceramic sherds or patterned tools, were collected, for further analysis relating to functional, temporal or cultural associations. All other surface materials were left in-situ within the fields, so that the site would not be collected out of existence. The site was then mapped and tied into its surroundings by relating the temporary datum to a permanent landmark, such as a billboard sign or farm building.

The location of site 332CS43 was triangulated, by determining the angle to four distinct buildings shown on the USGS topographic quadrangle map, using the Brunton pocket transit. In this manner it was discovered that site 32CS43 was actually outside the proposed levee corridor.

All historic features in the survey areas were examined. Structures constructed after 1940 were not recorded as sites, but their locations were noted. Data on the age of

buildings was collected from visual inspection and landowner information.

Areas of poor surface visibility, which also lacked adequate river cutbank exposures, were shovel tested. As specified in the scope-of-work (Appendix C), subsurface test intervals were 15 m, placed in a transect pattern, where possible. Tested areas were clearly marked on USGS topographic quadrangle maps of the project area (Figures 3-5). Two portions of Survey Area A and one part of Survey Area B were shovel tested. No subsurface shovel testing was deemed necessary in Survey Area C because of excellent visibility and the fact that it was away from the Sheyenne River. Probe transect locations were mapped using a Brunton pocket transit and pacing.

Shovel tests were excavated to the base of potential cultural zones, at least to 50 cm in most cases. Some shovel tests were dug as deep as 60 cm. Examination of the river cutbanks revealed undifferentiated alluvium located below 50 cm, which appeared to be culturally sterile. The tests were 30 to 45 cm in diameter. All matrix was screened using quarter-inch mesh hardware cloth. The shovel test hole profiles were detailed and later the holes were backfilled.

In a few instances, a two inch hand driven soil auger was utilized at the bottom of a shovel test to dig deeper. In one case, in Test Area C, the soil auger was used to excavate as far as 78 cm below the ground surface. Three of the probes in Test Area A were excavated between 59-61 cm (see Appendix B). The soil auger was used to estimate the depth of the soil deposition and to check for buried cultural deposits and paleosols. The auger augmented the probe depth to insure that cultural remains below 50 cm were not being overlooked.

One small portion of Survey Area A was not inventoried. Landowner Oscar Rustad denied Powers permission to enter his land to conduct the survey. This area is located east of the Sheyenne River in the N1/2, N1/2, N1/2 of Section 20, T.139N., R.49W. It consists of a 200 ft wide corridor for a proposed levee, south of Interstate 94, about 0.75 miles in length. The area not surveyed covers approximately 18 acres (ca. 7 hectares). All other components of the project were inspected as defined in the scope-of-work (Appendix C).

6.0 LABORATORY METHODS

All collected cultural artifacts were returned to the laboratory in Williston, North Dakota for study. Artifacts were washed, sorted and cataloged. The materials were

divided into general categories of lithic and ceramic artifact classes. Mervin G. Floodman of Powers performed the lithic analysis, while the pottery was examined by Dr. Ann M. Johnson of the National Park Service. The artifacts were described using terms common in North Dakota archaeology, and are defined below.

6.1 LITHIC ARTIFACTS

Lithic artifacts include tools such as projectile points, blanks, preforms, and bifaces, and debitage.

6.1.1 Projectile Points

These are artifacts designed for hafting and propulsion at the missile end of the projectile shaft: either a spear, dart or arrow. The following measurements were taken for projectile points: total length, maximum width, blade edge length, stem length, base width, neck width, notch depth, notch width, and shoulder width (all measurements in millimeters). Weight was measured to the nearest 0.1 gram. The same measurements for all applicable elements present were taken for all bifacial implements.

6.1.2 Blanks

These are any piece of lithic material that have been modified to an intermediate stage of a lithic reduction sequence in a specified assemblage. The piece must be unfinished with further modification intended. It must also be potentially modifiable into more than one type of finished tool (Bradley 1975).

6.1.3 Preforms

These are raw material pieces modified to an intermediate stage of a lithic reduction sequence in a specified assemblage. The piece must be unfinished and intended for further modification and must have the morphological potential to be modified into a single implement type in the assemblage (Bradley 1975).

6.1.4 Bifaces

These are relatively thin, worked items which have been modified on both dorsal and ventral surfaces. The flake removal scars may partially or completely cover both surfaces. This is a broad category covering a wide range of cultural materials having several functions. Some of

the artifacts classified as bifaces are not complete enough to allow absolute identification of the intended implement. The category is subdivided into biface tips, midsections, bases and lateral edge fragments.

6.1.5 Debitage

These are the waste flakes from the lithic reduction sequence. Such debris is non-utilized. Since nodebitage was collected during this project, further analysis, outside of noting its presence at a site, was unnecessary.

7.0 RESULTS

The three areas surveyed for the Sheyenne River flood control project are summarized and the results of the cultural resources inventory detailed in the following section.

7.1 SURVEY AREA A - NORTHERN SEGMENT

This survey area encompassed the bulk of the current project. Proposed components include construction of a new levee north and south of West Fargo, a diversion channel encircling the town to the west, and associated closure structures. It covered a total of approximately 1,079 acres (ca. 437 hectares) within the flat, featureless plain of the Red River Valley physiographic province. The area investigated extended from the Sheyenne River on the south side of West Fargo, completely encircled the town to the west and recrossed the Sheyenne River on the north, about 2.5 miles south of the Maple River junction (Figures 3). Most of the surveyed area is situated 1.0 to 1.5 miles west of the Sheyenne River. Portions of Sections 31 and 32, T.140N., R.49W.; Sections 4, 5, 6, 18, 19 and 20, T.139N., R.49W., and Sections 1, 12, and 13, T.139N., R.50W. were inventoried.

Survey Area A lies on the former bed of glacial Lake Agassiz, into which the Sheyenne River is entrenched. The soils are silty clays well suited to agriculture. The majority of the area inspected was under small grain cultivation. Most of the fields were in wheat, soy beans, or fallow, with some small parcels of alfalfa and grass, at the time of the survey. The only parts not cultivated were immediately adjacent to the Sheyenne River, where a portion of the Northern Floodplain Forest remains. Some parcels have been disturbed by road construction, urban development of West Fargo, sewage lagoons, and the stockyards in northwest Riverside. Overall, the surface

visibility was good to excellent. Photographic views of Survey Area A are presented in Figure 6.

The files search at the SHSND revealed a site lead for the railroad station located in the SW1/4, SE1/4, NE1/4 of Section 1, T.139N., R.50W. This area is currently under cultivation and lies just north of the existing Burlington Northern railroad tracks. No structural remains or depressions were found in this area. Some scattered cement and brick were discovered in the field, but whether this material was associated with the old railroad station is unknown. In any case, all structural evidence has been destroyed and no site can be defined here.

Several historic structures were encountered in the survey area, but were not recorded as sites because they are of very recent construction. These modern buildings are listed in the Powers field notes, on file with the Corps.

An interior drainage channel is planned for Section 5, T.139N., R.49W. This area also contained modern structures. Most of these buildings are only one or two years old and do not show up on the Corps aerial photograph project location maps. The eastern portion of the proposed channel was cultivated. New apartment complexes and houses were found on the east side of Center Street, above the Sheyenne River, and block the drainage channel alignment access to the river. The west side of Center Street was still in open grass (Figure 7). The city of Riverside was excavating a trench along this side of the street, which Powers inspected for cultural materials, in lieu of subsurface testing.

7.1.1 Subsurface Testing

Three portions of Survey Area A along the Sheyenne River were checked for buried cultural materials not observable by surface inventory. One was the internal drainage channel in Riverside, previously mentioned. A street on the west side of the river was being trenched. This trench was inspected and no cultural materials observed.

Another area examined for subsurface remains (Test Area A) was an open pasture located in the W1/2, NW1/4, SE1/4 of Section 31, T.140N., R.49W., just south of the Jeff Jones farm on the west bank of the river. A total of 17 shovel tests were dug at 15 m intervals (Figure 8). Soils are Cashel silty clay. No cultural materials were encountered.

The third area investigated for subsurface materials (Test Area B) was immediately across the river from Test Area A, in the E1/2, NW1/4, SE1/4 of Section 31. This parcel of

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Figure 6A: Section 31, T.140N., R.49W.



Figure 6B: Section 12, T.139N., R.50W.

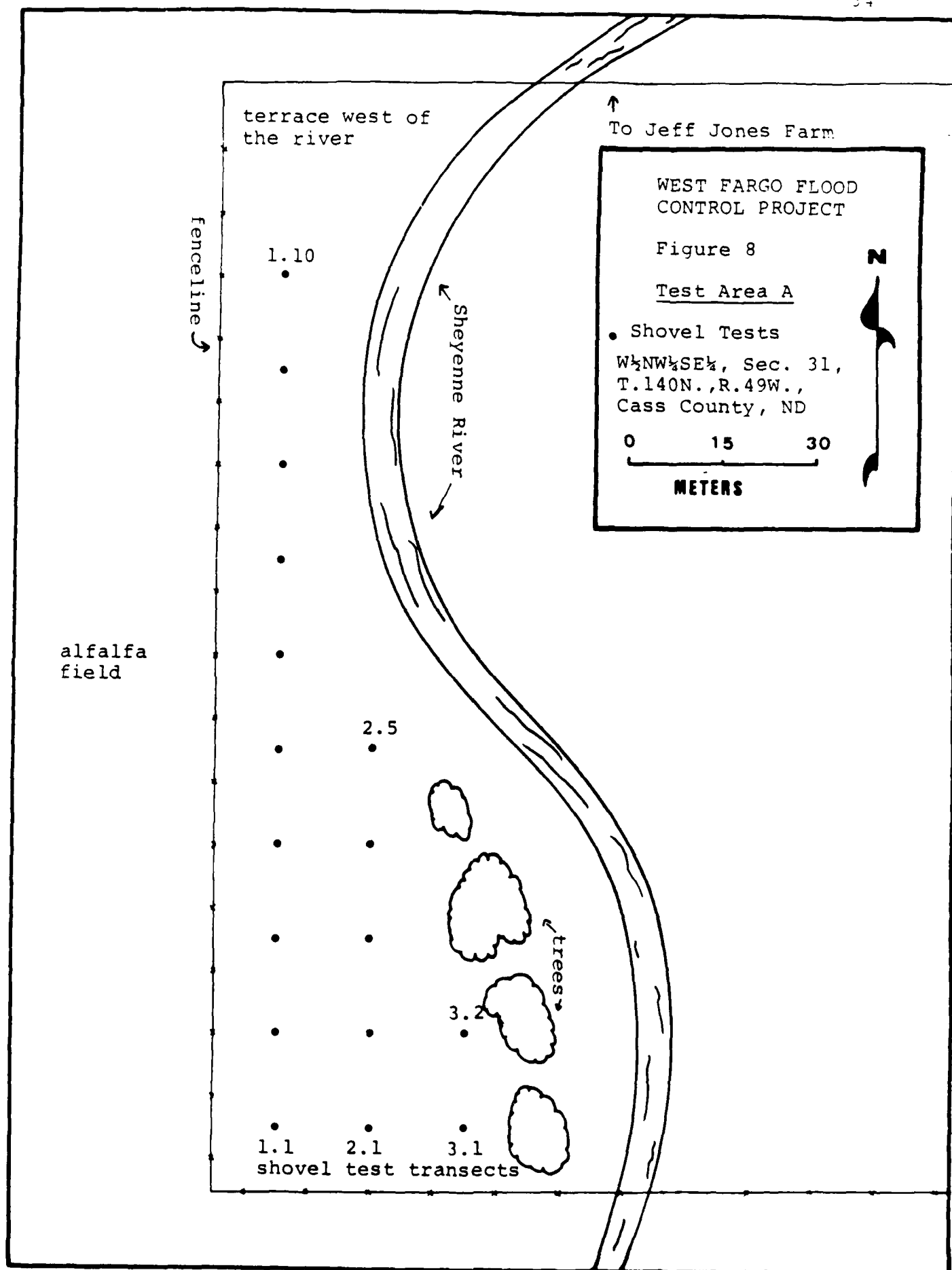
Figure 6
Overviews of Survey Area A

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View of Section 5, T.139N., R.49W.

Figure 7
Interior Drainage Channel



land was forested. Inspection of the river banks revealed no evidence of cultural remains. The cutbanks were generally shallow. Adjacent to the river was a cultivated field with excellent visibility. The forested area was randomly shovel tested from the edge of the woods toward the river. Systematic probing at set intervals was not possible here due to topography and dense foilage. Soils appear to be Fairdale silty loam next to the river and Cashel silty clay in the cultivated field further back. No cultural artifacts were found in the shovel tests. The shovel tests dug in Test Areas A and B are summarized in Appendix B of this report.

7.1.2 Cultural Resources

One historic/architectural site (32CS40) was recorded in Survey Area A. This is the M.T. Lund farmstead, in the NE1/4, NW1/4, NW1/4 of Section 20, T.139N., R.49W. The site covers an area of about 3,496 sq m. Five features were noted, consisting of a house, a grainary, a garage, and two storage sheds, one of which used to be a bunkhouse. Also associated with the site are garden areas, flower beds, a driveway, windbreaks, and a earthen dike above the Sheyenne River. The site form for 32CS40 is included in Appendix A of this report.

The exact age of site 32CS40 is not known. It appears to pre-date 1940 and retains physical integrity. The use of concrete may indicate that the buildings were erected in the twentieth century. The land containing 32CS40 was originally patented in 1878 by Sarah Nelson. It was purchased by the Lund family in 1955. A deed and title search revealed no evidence that the site was associated with an historically significant person. The features have no architectural merit, and were not designed by a master. The site is not particularly old and is not representative of an important pattern or associated with a historical event. Site 32CS40 is not likely to yield significant information about local history, and should not be eligible to the NRHP. No direct adverse impacts should occur from the proposed project, which will merely entail upgrading of the existing dike on the eastern edge of the site.

No prehistoric cultural materials or sites were discovered in Survey Area A. The surface survey, cutbank inspections and shovel testing were all negative. Surface visibility was adequate for site location. Subsurface testing was conducted at two portions of the survey area with low visibility, and river cutbanks were also examined. No evidence of a buried prehistoric cultural occupation was found. A single historic site (32CS40) was recorded in survey area A. It does not appear to be significant.

7.2 SURVEY AREA B - SOUTHERN SEGMENT

Survey Area B was inventoried for a proposed diversion channel near Horace. This component is planned to follow an alignment 320 ft wide by approximately 3.5 miles in length, totaling some 136 acres (ca. 55 hectares) (Figure 4). It is adjacent to a county road along the west edge of Sections 6, 7, 18 and 19, T.138N., R.49W.

This survey area is entirely on the former glacial Lake Agassiz land form. It is flat, featureless, and consists of silty clay soils well suited to agriculture. At the time of the survey the entire corridor was under cultivation, except for the very southern end adjacent to the Sheyenne River (Figure 9A). Crops included wheat and soybeans, with large fallow fields. Surface visibility in the fields was good to excellent. A small stand of Northern Floodplain Forest was found along the edge of the river.

7.2.1 Subsurface Testing

The wooded area adjacent to the Sheyenne River in the SW1/4, NW1/4, SW1/4 of Section 19, T.138N., R.49W. was archaeologically tested (Test Area C). A single transect of shovel tests were dug east to west across a forested section along an open, grassy trail (Figure 9B). A total of six tests were excavated. Fairdale silty clay soils were revealed in the tests, but no cultural materials were found. Inspection of the river bank indicated that soils here are not deep. The testing is summarized in Appendix B of this report.

7.2.2 Cultural Resources

One historic isolate (IF #1) was recorded in the wooded portion of the SW1/4, NW1/4, SW1/4 of Section 19, T.138N., R.49W., on land owned by Ken Benson of Horace. It consists of abandoned horse-drawn machinery. No historic buildings or depressions were associated with it. The isolate is not considered eligible to the NRHP. The isolated find form is included in Appendix A.

No prehistoric cultural materials were recorded in Survey Area B. Surface inventory, shovel tests, and cutbank inspections were all negative. Ground visibility was very good, and examination of the river bank and shovel testing failed to produce cultural remains. The only resource found in Survey Area B was the isolated find of historic farm machinery. It is not significant.

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Figure 9A: Survey Area B, Section 18,
T.138N., R.49W.



Figure 9B: Test Area C, Section 19,
T.138N., R.49W.

Figure 9
Views of Survey Area B and Test Area C

7.3 SURVEY AREA C - NEW LEVEE ALIGNMENT

On February 4, 1987 the Corps issued modification P00001 to Contract No. DACW37-86-M-1052 asking Powers to perform a Phase I cultural resources inventory of a proposed new levee alignment west of Survey Area A. At first this new alignment was estimated to be 19,000 ft long. However, closer inspection with the maps of Survey Area A indicated that it fell about 1,000 ft short of the old alignment. Therefore, on April 7, 1987 the Corps issued Modification P00002 to the contract with Powers, so that the entire length of the new alignment was covered, and the inventory matched up with Survey Area A. In all, the new survey area was about 20,000 ft long (ca. 3.8 miles) and 600 ft wide, including approximately 276 acres (ca. 112 hectares). Survey Area C is located in the W1/2 of Section 12; NE1/4, NW1/4 and NE1/4 of Section 11; E1/2, SW1/4, E1/2, NW1/4, and NE1/4 of Section 2; and NW1/4 of Section 1 all of T.139N., R.50W. (see Figure 5).

This survey area is within the former bed of glacial Lake Agassiz. Topography is flat, featureless and consists of silty clay soils well suited to agriculture. The entire alignment was under cultivation at the time of the survey, including wheat, soy beans, corn and fallow acreages. Surface visibility was good to excellent. The fields are dissected by a series of modern human made features which helped define the portions to be inspected. These include the north-south county roadways, Interstate Highway 94 and the Burlington Northern railroad tracks, as well as some windbreaks.

In addition to the human made features, the alignment is near two small, intermittent drainages. One of the stream courses is included with the survey area while the other lies adjacent to the western edge of the project but is not crossed. The first drainage heads in the NE1/4, NW1/4 of Section 11 and flows to the southwest. This is a well defined stream course which was carrying running water at the time of the survey. The proposed new alignment crosses this stream by Interstate 94. The second drainage heads in Section 3 and flows northerly. The proposed levee corridor passes along the eastern edge of this stream course in Section 2. This is a relict stream bed which was dry at the time of the survey.

7.3.1 Subsurface Testing

Because of the excellent surface visibility it was determined that subsurface testing was not necessary in Survey Area C.

7.3.2 Cultural Resources

A total of three prehistoric sites and one prehistoric isolated find were recorded in Survey Area C. These cultural resources are described below and site forms are included in Appendix A of this report.

Site 32CS42

This site is located within the NW1/4, NW1/4, NE1/4 and E1/2, NE1/4, NW1/4 of Section 11, T.139N., R.50W. It was found in a field owned by G.M. Libbrecht of West Fargo, on a terrace above the south bank of a small intermittent stream which is a tributary to the Sheyenne River, at an elevation of 275 m (ca. 900 ft amsl).

Site 32CS42 consists of a prehistoric cultural material scatter, which includes chipped stone, ceramics, bone fragments, clam shell, and cracked rock. The artifacts are widely scattered, extending some 220 m north-south by 50 m east-west, covering an estimated area of 11,000 sq m.

While the site area is large, its concentration of material is sparse. Only 23 lithic and ceramic artifacts were noted. The bone and cracked rock scatter is dense, but these materials may not be directly related to the prehistoric occupation. Collected artifacts include six potsherds, one corner-notched projectile point of Knife River flint, one serrated chert point midsection, and one tan quartzite biface (Figures 10 and 11).

Site 32CS42 appears to be associated with the Late Woodland period, based on ceramic typology and point styles. It is tentatively classified as Early Phase Blackduck, which can be dated from about A.D. 800-1400 (Anfinson 1979). The ceramics have been analyzed by Dr. Ann M. Johnson of the National Park Service and are described in Appendix E of this report.

The site is found within the survey corridor and will be directly impacted by the proposed levee construction. The site is of undetermined NRHP eligibility pending a subsurface testing program to assess its buried remains. It is recommended that this site be archaeologically tested prior to project construction.

Site 32CS44

This site is located within the NE1/4, NE1/4, NW1/4 of Section 11, T.139N., R.50W. It was found in a field owned by G.M. Libbrecht of West Fargo, on a terrace above the north edge of the small stream course, at an elevation of 274 m.

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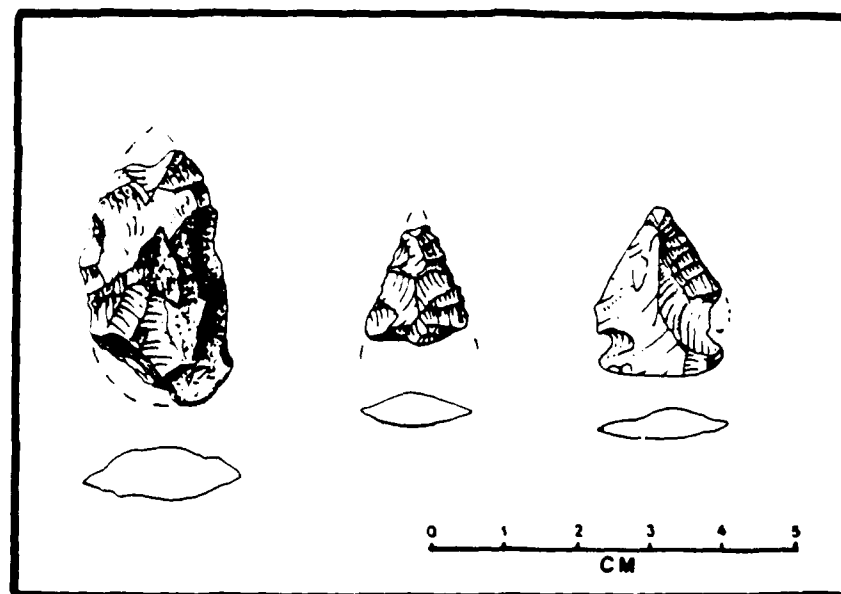


Figure 10

Artifact Collected from 32CS42

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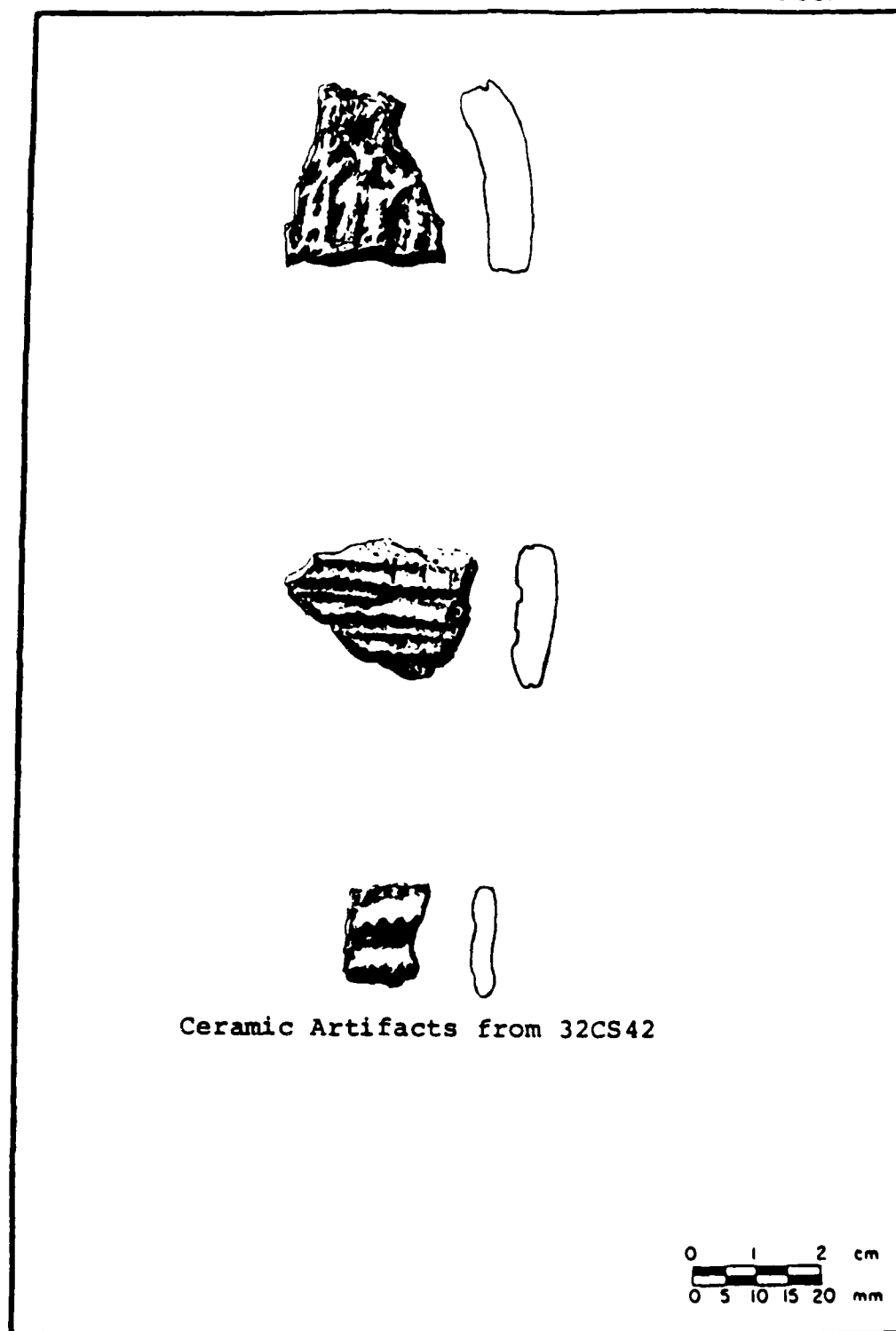


Figure 11

Site 32CS44 consists of a prehistoric cultural material scatter, which includes chipped stone, ceramics, bones, clam shell and cracked rock. The artifacts are located in the field extending some 120 m east-west by 40 m north-south, covering an estimated 4,800 sq m. The concentration of cultural materials within the defined site is relatively sparse. Only 20 lithic and ceramic artifacts were found. The scatter of bone and cracked rock is dense, but may not be directly related to the prehistoric occupation.

Figures 12 and 13 illustrate artifacts from the site. They include a side-notched projectile point and biface tip, both of chert, and a biface of Knife River flint. A single culturally unspecified potsherd was also found. The sherd is described by Dr. Ann M. Johnson, in Appendix E of this report, as being different from the pottery noted at site 32CS42.

The site is believed to be associated with the Late Woodland period. This is based upon the small side-notched projectile point and presence of ceramics. The materials are not diagnostic enough to clearly indicate the identity of the Woodland component at site 32CS44. Since it is directly across the stream from site 32CS42, it may be related to that occupation. The Late Woodland period can be dated from ca. A.D. 600-1800.

Site 32CS44 is situated on the west edge of the survey corridor and may be impacted by the proposed project. The site is of undetermined NRHP eligibility, pending a subsurface testing program to determine if intact cultural materials exist beneath the plowzone. It is recommended that the site be archaeologically tested prior to project construction.

Site 32CS43

This site is located within the NW1/4, SE1/4, NW1/4 of Section 2, T.139N., R.50W. It was found in a cultivated field north of the Burlington Northern railroad tracks, at an elevation of 273 m (ca. 900 ft amsl).

Site 32CS43 consists of a prehistoric cultural material scatter, which includes chipped stone artifacts and fragmented faunal remains. The lithic materials are more tightly concentrated than the other sites recorded nearby, but the bone scatter is not as dense. The site extends some 40 m east-west by 55 m north-south, covering an estimated 2,200 sq m. The site area and surrounding terrain is essentially featureless. A small stream course is located over 350 m to the west.

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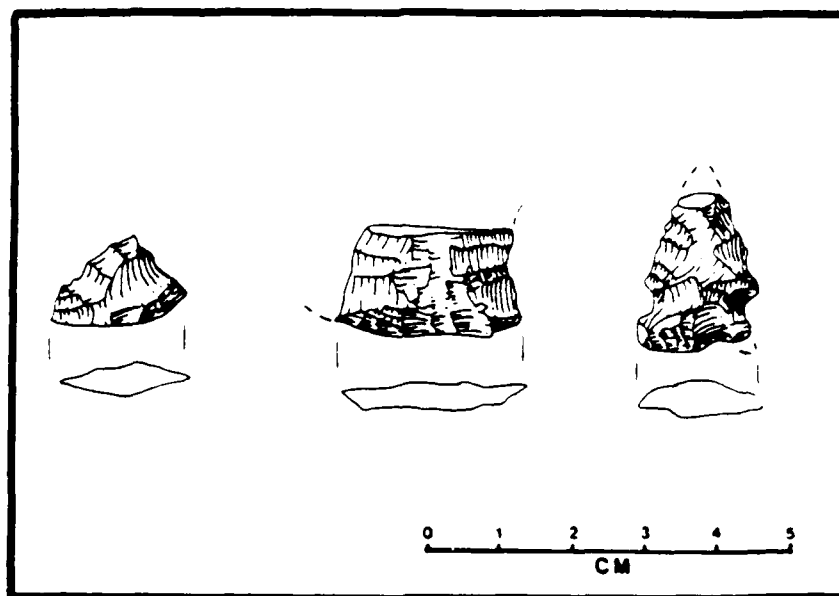


Figure 12

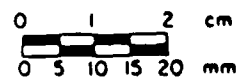
Artifacts Collected from 32CS44

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Figure 13



Ceramic Sherd from Site 32CS44



The cultural materials are few in number, with 15 lithic artifacts observed. No temporally diagnostic materials were associated with the site. It is unidentified as to cultural components and period of occupation. Figure 14 illustrates two tools collected from the site. They are bifaces of chert. No ceramics were found.

Site 32CS43 is located some 91 m west of the proposed levee, and is outside the proposed area of impact. This was determined by triangulation from the site datum, after it was first found and recorded. The site is of undetermined NRHP eligibility. It is recommended that archaeological testing be conducted if the site is to be impacted. However, if the site can be avoided during construction, no further work should be necessary at this resource.

Isolated Find #2

This isolated find is located within the SE1/4, SW1/4, NE1/4, NW1/4 of Section 11, T.139N., R.50W. It was discovered on the south side of the stream which passes through the survey corridor, at an elevation of 274 m (ca. 900 ft amsl).

The isolated find consists of a metate grinding slab of slate or diorite. It was found some 150 m southwest of Site 32CS42, along the same terrace. The artifact may or may not be related to that site.

Grinding slabs are common items in cultural assemblages from Archaic through Late Woodland times and are not particularly temporally diagnostic. The isolate was discovered outside of the project corridor, and should not be impacted by the levee construction as currently proposed. The artifact was collected, and is illustrated in Figure 15. The isolate is considered not eligible for the NRHP and no further work is recommended at this location.

8.0 EVALUATIONS AND CONCLUSIONS

In June of 1986 and May of 1987 Powers conducted a Phase I cultural resources survey of the proposed Sheyenne River flood control project at West Fargo, Cass County, North Dakota. Three areas, totaling some 1,500 acres (ca. 607 hectares), were inventoried. Field procedures included surface pedestrian survey, cutbank inspection, and limited subsurface testing.

As a result of the study, three prehistoric sites, one architectural/historic site, one prehistoric isolate and one historic isolated find were recorded. The historic

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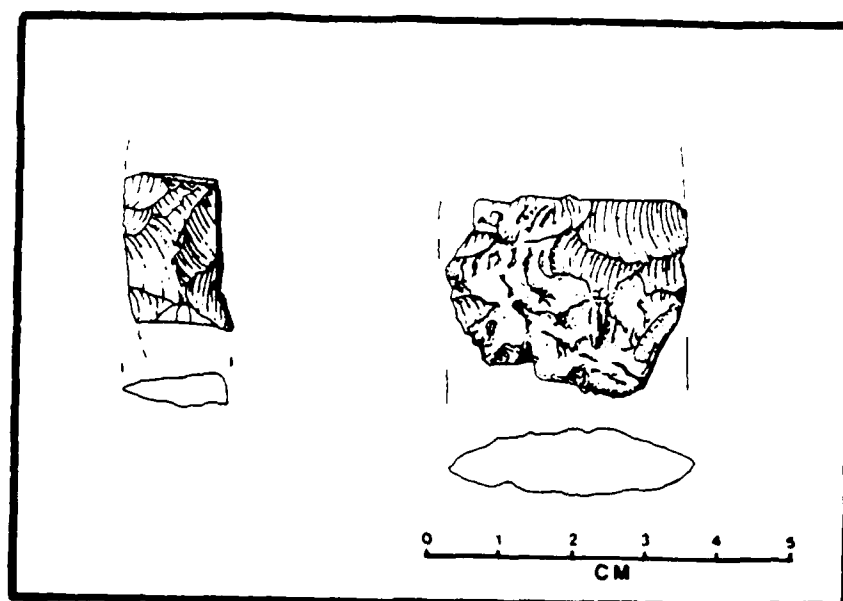


Figure 14

Artifacts Collected from 32CS43



Figure 15: Isolated Find #2

0 1 2 3 4 5
CM

site is the M.T. Lund farmstead (32CS40), found in Survey Area A. It consists of a house and four associated out-buildings. The site has been assessed as not eligible for nomination to the NRHP.

The three prehistoric sites (32CS42, 32CS43, and 32CS44) were found in Survey Area C. They are all cultural material scatters. Two of the sites (32CS42 and 32CS44) are situated along an intermittent stream course. Both appear to date to Late Woodland times. Site 32CS42 contains ceramics which are similar to Blackduck ware and small arrow points. Site 32CS44 yielded one non-diagnostic potsherd and a small arrow point. The third site (32CS43) was found some 350 m east of a dry drainage. It contains no diagnostic artifacts. All three prehistoric sites are evaluated as being of undetermined NRHP eligibility. They are located in cultivated fields, and their upper levels have been disturbed. However, an archaeological testing program at these sites could examine the nature and extent of their cultural deposits, and discover if significant remains exist intact beneath the plowzone.

Sites 32CS42 and 32CS44 are on Overly-Bearden silt loams, of 0-3% slope. Site 32CS43 is on the Fargo-Hegne silty clay soil association. The Overly-Bearden soils along alluvial stream courses have some potential for containing buried paleosols or perhaps subsurface cultural materials. The Fargo-Hegne soils are not as deep, and would have a lower potential for containing buried cultural deposits (U.S. Department of Agriculture 1983).

The historic isolated find was discovered in Survey Area B. It consists of horsedrawn farm implements. The machinery is in poor condition and appears ineligible for the NRHP.

The prehistoric isolated find was a grinding stone found in Survey Area C. It was collected. As an isolate it is not significant, and is judged to be ineligible for nomination to the NRHP.

No buried prehistoric materials were found along the river cutbanks or in the shovel tests. Few of the previously recorded sites in the region were found through cutbank inspection, and none were noted using this technique during the Powers survey. As a result of the cutbank inspection and shovel tests, Survey Areas A and B are believed to have a low potential for containing buried significant cultural remains.

Most of the Survey Area A and B is located a mile or two away from the Sheyenne River, on open, flat, cultivated land. Previous surveys by Vehik (1979) and Haury and Schneider (1986) have noted that sites in the Sheyenne

River Valley were usually found adjacent to the river, or on higher terraces and bluffs overlooking the river.

There were several places closer to the Sheyenne River which were considered to have some potential for site location. In most of these cases, where open fields extended to the river, surface visibility was good to excellent. In areas of low visibility shovel tests were utilized by Powers. Those shovel tests produced no evidence of buried cultural occupations. None of the sites along the Sheyenne River recorded by previous investigations in the project vicinity were found by testing areas adjacent to cultivated fields, where no surface evidence of cultural remains were visible. Therefore, the lack of cultural materials in the shovel tests was not a surprise, given the lack of visible surface artifacts in cultivated fields adjacent to the tested areas.

The 1979 survey by Vehik included several sections inventoried during the current survey. Because Vehik failed to note, on appropriate maps, the exact parcels examined, areas of overlap may have occurred. No cultural sites were recorded by Vehik (1979) in the West Fargo vicinity.

Moorhead State University's survey of the Red River Valley in Cass County showed that the presence of a permanent water source was the most important factor in prehistoric site locations. Eight of the 10 sites they recorded were found along major streams, and one site was near a relict stream channel (Michlovic 1987). Therefore, it was not unexpected that two of the three prehistoric sites discovered by Powers in Survey Area C were located next to a drainage. It was surprising that one prehistoric site was found in a flat cultivated field away from a permanent water source. However, it is thought that site 32CS43 could be related to the drainage located some 350 m west of it.

All three prehistoric sites recorded by Powers in 1987 in Survey Area C were scatters of cultural materials. Sites 32CS42 and 32CS44 contained ceramics, small arrow points, a few tools, and a sparse amount of debitage, associated with fragmented bones, cracked rocks and clam shells. Site 32CS43 contains no ceramics or projectile points, and had little broken bones or shells. The faunal remains may or may not be related to the cultural occupation of these sites. As Michlovic (1987:22) stated: "At many locations in the Red River Valley farmers used to keep cattle and other domestic animals, and it is unsafe to assume that bone debris is related to a prehistoric occupation."

All three of the prehistoric sites recorded by Powers are relatively sparse in terms of the number of cultural

materials observed; with Site 32CS42 having 23 artifacts, site 32CS44 having 20, and only 15 artifacts being counted at site 32CS43. However, this is also in keeping with the Moorhead State University (Michlovic 1987) data. The one site they recorded near the present project (32CS33) contained only two lithics and two pieces of ceramics. Eight of their other nine sites contained from two to 27 artifacts. Only one prehistoric site (32CS30) described by Moorhead State University during their 1986 Cass County survey contained a great deal of cultural material.

Judging from previous work in the region, it was expected that Woodland, Plains Village, and Late Prehistoric sites would be found during the Powers survey. In fact, two of the three prehistoric sites recorded by Powers can be placed in the Late Woodland period. They both contain ceramics and small projectile points. The ceramics at site 32CS42 appear to be similar to Blackduck ware. The sherd from site 32CS44 cannot be assigned to a cultural group. These data differ from Michlovic's (1987) findings. Most of the sites recorded by Moorhead State University in Cass County contained ceramics typed as either Sandy Lake or Northeastern Plains ware.

The Blackduck horizon has been dated from sites in Minnesota, Manitoba and Ontario between ca. A.D. 480 and 1775, and is thought to be associated with protohistoric Algonquian people (Syms 1977). It has been identified on the lower Red River near Winnipeg at the Lockport site (MacNeish 1958) and on the eastern beach ridges of the Red River in Minnesota at Femco (Michlovic 1987). It is not well known on the west side of the Red River in North Dakota. However, Schneider (1982b) feels some of the pottery from the Beeber site on the James River is similar to Blackduck, and one instance was reported of Blackduck ceramics being found in the Little Missouri Badlands of western North Dakota (Campbell et al. 1982). Sandy Lake ware is commonly found in the Red River Valley (Michlovic 1981, 1983, 1987). These ceramics, which are thought to be related to the protohistoric Dakota people, have been dated from ca. A.D. 1000 to 1550.

Michlovic (1987) noted that sites found along streams in the Red River Valley tended to contain ceramics while sites located away from water did not. He observed that while sites in both areas could be assigned to Late Woodland times based on projectile point typologies, there may be a functional difference in this locational pattern that resulted in non-ceramic sites being situated away from water sources. The Powers survey appears to support this. The two prehistoric sites (32CS42 and 32CS44) recorded near a stream in Survey Area C contained ceramics, while the site (32CS43) found away from water did not.

In all, it is believed that the Powers survey and testing program was of sufficient scope and intensity to find and record all cultural resources in the project area. Subsurface testing did not reveal any buried sites in Survey Areas A and B. Michlovic (1987) feels that deeply buried cultural deposits exist in the Red River Valley, and such sites could be found along river levees. However, he does not believe that shovel testing is a sufficient means of discovering these buried remains. The deep mechanical probing advocated by Michlovic was beyond the scope of the current Phase I investigations conducted by Powers. It should also be pointed out that most of the area inventoried by Powers for the West Fargo flood control project was away from the Sheyenne River and therefore had a lower potential for containing buried sites.

Future goals for the Sheyenne River flood control project should include the archaeological testing of sites 32CS42 and 32CS44. Given the findings of Moorhead State University (Michlovic 1987), it is possible that these sites contain important information. There is some potential for cultural remains to be found intact beneath the plowzone at these locations. Excavations at these resources could produce larger artifact assemblages which would allow for comparisons with other sites in the Red River Valley. In the case of site 32CS44, the recovery of more diagnostic artifacts may allow for its assignment to a specific cultural group. Of particular interest at site 32CS42 would be the collection of more ceramics and the clarification of its Blackduck associations. If more ceramics could be collected from sites 32CS42 and 32CS44, they could be compared to other sites in the area which were occupied by prehistoric people who manufactured Sandy Lake ware. It is also possible that testing could discover hearths or other features which could be radiocarbon dated to further refine the chronology of the Red River Valley.

9.0 RECOMMENDATIONS

The Phase I inventory of the Sheyenne River flood control project area by Powers resulted in the location of six cultural resources. These include three prehistoric sites (32CS42, 32CS43, and 32CS44), one historic site (32CS40), one prehistoric isolated find, and one historic isolated find. The two isolates and the historic site are considered not eligible for nomination to the NRHP. No further work is recommended at these resources.

The three prehistoric sites are of undetermined NRHP eligibility. Site 32CS43, found in Survey Area C, appears to be outside of the proposed levee alignment impact area. Since it should not be adversely affected by the project, no further work is recommended at this location. If the Corps

plans change, or if future construction activities do threaten this site, it should be archaeologically tested to determine if it qualifies for the NRHP.

Prehistoric sites 32CS42 and 32CS44, in Survey Area C, are within the proposed impact area for the new levee alignment. These sites may contain significant cultural deposits below the disturbed plowzone. It is recommended that they be archaeologically tested prior to project construction to determine if they meet the criteria for nomination to the NRHP.

Sites 32CS42 and 32CS44 could be tested in a similar manner. Each site should be intensely inspected on the ground and all visible surface artifacts pin flagged. Diagnostic artifacts, such as ceramics and projectile points should be collected, along with all formal tools. It is suggested that for both sites, a series of shovel probes be excavated in a modified cross pattern, spaced every five meters, over the site areas. One transect of probes should be along the long axis of the site, while the other is dug across its width. These probes should extend slightly beyond the boundaries drawn during Powers survey, to make certain of the extent of the buried cultural materials at these locations. For site 32CS42 it is suggested that about 50 probes be excavated along its long axis and about 18 probes be dug across its width. The probes should be excavated beneath the plowzone, at least to a depth of 40 cm. In several instances it may be helpful to test deeper, to about one meter, using a soil auger. Formal one meter square excavation units should be opened over productive probes. At site 32CS42, a minimum of one formal unit and a maximum of five units should be excavated. At the conclusion of the testing, the site should be mapped with a rod and transit, piece plotting the surface artifacts, noting any features discovered, and illustrating the location of probes and formal units. It is anticipated that the testing of site 32CS42 would take a crew of two professional archaeologists five field days to complete.

At site 32CS44 about 30 shovel probes should be dug lengthwise and about 15 excavated over its width. Again, a minimum of one and a maximum of five formal one meter square excavation units should be opened in productive areas. As with site 32CS42, all artifacts, features, probes, and formal units should be properly mapped. It is anticipated that work at site 32CS44 should take two professional archaeologists four days to complete.

After the field work, approximately five days of laboratory analysis is anticipated to study the collected materials. Ceramics and faunal remains should be sent to appropriate specialists. If carbon samples or pollen samples are

collected, these should be sent out for radiocarbon dating and palynology. To write the report of these investigations should take about ten days time for the Principal Investigator, plus three days of clerical work, one day of graphics, two days of editing, and one day of administration. The report of the investigations should discuss which sites are eligible for nomination to the NRHP. For each NRHP eligible site, recommendations should be made for the mitigation of adverse effects. This should include a research plan for Phase III data recovery efforts. An additional two days of writing time for the Principal Investigator and one day of clerical time has been allocated in case NRHP nomination forms need to be prepared.

Powers estimates that the total cost for the Phase II testing programs at sites 32CS42 and 32CS44, combined, will be \$11,580.62. A detailed justification of this cost estimate is given in Appendix F of this report.

The only other recommendation is that the 18 acres in the N1/2, N1/2, N1/2 of Section 20, T.139N., R.49E., in Survey Area A, to which Powers was denied entry in 1986 by the landowner, Oscar Rustad, be inventoried by the Corps prior to project construction. Any cultural resources in that area should be properly recorded and evaluated.

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11.0 APPENDICES

APPENDIX A:
Site Forms

NUCRS SITE FORM
ARCHITECTURAL SITES

Page 1 39

I. SITE I.D.

SITS # 3.2 C.S. 4.0
State County Site Number
Field Code PE86CS1 Site Name MT. LUND. FARM
Field Code _____ Site Name _____
Map Quad WEST FARGO SOUTH
Map Quad _____
LTL ☐ Twp 139 R 049 Sec 20 QQQ 5 QQ 8 Q 8
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

II. SITE DESCRIPTION

City RURAL WEST FARGO
Street # _____ Street # _____
Street Name _____ Street Name _____
of Features 0.5

FEATURE DATA

0.1 Feature # 4.0 Feature Type 7 Condition
_____ Const Date 1.3 Context 2 Significance
_____ Feature Date 3 Plan Shape

PORCH

BUILDING MATERIALS

1 Original 2.5 Structure System 5 Main Entrance
_____ Addition/Altered 1.5 Primary Exterior Finish
_____ Removed/None _____ Secondary Exterior Finish

0 Ethnic _____ Builder
5 Style _____ Engineer
0.6 1.8 8.6 Fieldwork Date _____ Designer Architect

_____ Other Information

SHSND USE

_____ Soil Association _____ Ecozone _____ Area Signf _____ MS Number
_____ Soil Association _____ Ecozone _____ Area Signf _____ MS Number
_____ CR Type _____ Verified Site _____ Non-Site _____ E C F _____ T F
_____ State Registry _____ National Register

Coder _____ Date Coded _____

NDCRS ARCHITECTURAL SITE FORM
Page 2

60

Field Code <u>PE-86-CS-1</u>				SITS NUMBER <u>32CS40</u>	
FEATURE # <u>01</u>		NAME IN NAME BLOCK _____			

BASEMENT	FOUNDATION MATERIALS	STORIES	CORNICE	ROOF TYPE	DATING METHOD
<input checked="" type="checkbox"/> yes	<input type="checkbox"/> Brick	<input type="checkbox"/> 1	<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Gable	<input type="checkbox"/> Plat Map(s)
<input type="checkbox"/> no	<input type="checkbox"/> Concrete Block	<input checked="" type="checkbox"/> 1 1/2	<input type="checkbox"/> Brick	<input type="checkbox"/> Hipped	<input type="checkbox"/> County Atlas
<input type="checkbox"/> unknown	<input type="checkbox"/> Fieldstone	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Deck	<input type="checkbox"/> Date Block
<input type="checkbox"/> other	<input type="checkbox"/> Cut Stone	<input type="checkbox"/> 2 1/2	<input type="checkbox"/> Wood	<input type="checkbox"/> Gambrel	<input type="checkbox"/> Sanborn Map(s)
	<input checked="" type="checkbox"/> Poured Concrete	<input type="checkbox"/> 3	<input type="checkbox"/> Other	<input type="checkbox"/> Flat	<input type="checkbox"/> Topo Map(s)
	<input type="checkbox"/> Refaced	<input type="checkbox"/> Other		<input type="checkbox"/> Other	<input type="checkbox"/> Other
WINDOWS					
	<input type="checkbox"/> Unknown				
	<input type="checkbox"/> Other				
<input type="checkbox"/> Original <input type="checkbox"/> Altered					

FEATURE DESCRIPTION & STATEMENT OF INTEGRITY Feature 1 is the primary residence and dwelling. The exterior finish is grey simulated wood metal siding horizontally laid. The siding is probably over a wooden lap siding. The main entrance is on the northeast side and has poured concrete steps (five) with metal pipe railings. The porch is on the rear, southeast side. The roof is gable with interlocking shingles. It has a brick chimney at the roof peak. The integrity of the building is good.

SIGNIFICANCE

<u> </u> SIGNIFICANT		<u>1</u> NOT SIGNIFICANT
<input type="checkbox"/> Work of Master	<input type="checkbox"/> Visual Landmark	<input checked="" type="checkbox"/> Too new
<input type="checkbox"/> High Artistic Values	<input type="checkbox"/> Associated with significant event	<input type="checkbox"/> Lacking integrity
<input type="checkbox"/> Rep. of type, period, method of construction	<input type="checkbox"/> Associated with devel. of locality	<input checked="" type="checkbox"/> Not High Style
<input type="checkbox"/> Other _____	<input type="checkbox"/> Associated with significant person	<input checked="" type="checkbox"/> Other

JUSTIFICATION OF SIGNIFICANCE The building is not significant as it is not architecturally distinct, unique or the work of a master. Nor is it associated with historic personage or events.

Recorded by Mervin G. Floodman, Nick G. Franke Date June 18, 1986

I. SITE I.D.

SITS # 32 C.S. 40
State County Site Number
Field Code P E 8 6 C S 1 Site Name MT LUND FARM
Field Code _____ Site Name _____
Map Quad W E S T F A R G O S O U T H
Map Quad _____
LTL ☐ Twp 139 R 049 Sec 20 QQQ 5 QQ 8 Q 8
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____
LTL ☐ Twp _____ R _____ Sec _____ QQQ _____ QQ _____ Q _____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

II. SITE DESCRIPTION

City R U R A L W E S T F A R G O
Street # _____ Street # _____
Street Name _____ Street Name _____
of Features 05

FEATURE DATA

02 Feature # 15 Feature Type 7 Condition
_____ Const Date 13 Context 2 Significance
_____ Feature Date 5 Plan Shape

PORCH

BUILDING MATERIALS

☐ Original 25 Structure System 4 Main Entrance
☐ Addition/Altered 26 Primary Exterior Finish
☐ Removed/None _____ Secondary Exterior Finish

0 Ethnic _____ Builder
28 Style _____ Engineer
06118186 Fieldwork Date _____ Designer Architect

_____ Other Information

SHSND USE

☐ Soil Association ☐ Ecozone ☐ Area Signf _____ MS Number
☐ Soil Association ☐ Ecozone ☐ Area Signf _____ MS Number
☐ CR Type ☐ Verified Site ☐ Non-Site _____ E C F ☐ T F
☐ State Registry ☐ National Register

Coder _____

Date Coded _____

SITS NUMBER 32CS40

<u>BASEMENT</u>	<u>FOUNDATION MATERIALS</u>	<u>STORIES</u>	<u>CORNICE</u>	<u>ROOF TYPE</u>	<u>DATING METHOD</u>
<input type="checkbox"/> yes	<input type="checkbox"/> Brick	<input type="checkbox"/> 1	<input type="checkbox"/> Metal	<input type="checkbox"/> Gable	<input type="checkbox"/> Plat Map(s)
<input checked="" type="checkbox"/> no	<input type="checkbox"/> Concrete Block	<input type="checkbox"/> 1 1/2	<input type="checkbox"/> Brick	<input type="checkbox"/> Hipped	<input type="checkbox"/> County Atlas
<input type="checkbox"/> unknown	<input type="checkbox"/> Fieldstone	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Deck	<input type="checkbox"/> Date Block
<input type="checkbox"/> other	<input type="checkbox"/> Cut Stone	<input type="checkbox"/> 2 1/2	<input type="checkbox"/> Wood	<input type="checkbox"/> Gambrel	<input type="checkbox"/> Sanborn Map(s)
	<input checked="" type="checkbox"/> Poured Concrete	<input type="checkbox"/> 3	<input type="checkbox"/> Other	<input type="checkbox"/> Flat	<input type="checkbox"/> Topo Map(s)
	<input type="checkbox"/> Refaced	<input type="checkbox"/> Other		<input type="checkbox"/> Other	<input type="checkbox"/> Other
<u>WINDOWS</u>	<input type="checkbox"/> Unknown				
	<input type="checkbox"/> Other				
<input checked="" type="checkbox"/> Original					
<input type="checkbox"/> Altered					

FEATURE DESCRIPTION & STATEMENT OF INTEGRITY This feature was originally an old bunkhouse for the farmstead, but is currently utilized for storage. It is a rectangular single story building with a gable roof and brick chimney at the center of the roof peak. It is constructed of horizontally laid milled lumber siding, with two windows and a door.

SIGNIFICANT

1 NOT SIGNIFICANT

<input type="checkbox"/> Work of Master	<input type="checkbox"/> Visual Landmark	<input checked="" type="checkbox"/> Too new
<input type="checkbox"/> High Artistic Values	<input type="checkbox"/> Associated with significant event	<input type="checkbox"/> Lacking integrity
<input type="checkbox"/> Rep. of type, period,	<input type="checkbox"/> Associated with devel. of locality	<input checked="" type="checkbox"/> Not High Style
<input type="checkbox"/> method of construction	<input type="checkbox"/> Associated with significant person	
<input type="checkbox"/> Other		<input checked="" type="checkbox"/> Other

JUSTIFICATION OF SIGNIFICANCE The feature is not significant as it is not architecturally unique, a work of a master or associated with an important historic person or event.

Date June 18, 1986

I. SITE I.D.

SITS # 3.2 C.S. 4.0
State County Site Number

Field Code P.E.86.C.S.1 Site Name M.T. LUND FARM
Field Code _____ Site Name _____

Map Quad W.E.S.T. F.A.R.G.O. S.O.U.T.H.
Map Quad _____

LTL	Twp	<u>1.3.9</u>	R	<u>0.4.9</u>	Sec	<u>2.0</u>	QQQ	<u>5</u>	QQ	<u>8</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

II. SITE DESCRIPTION

City RURAL WEST FARGO

Street # _____ Street # _____

Street Name _____ Street Name _____

of Features _____

FEATURE DATA

<u>0.3</u> Feature #	<u>1.5</u> Feature Type	<u>7</u> Condition
_____ Const Date	<u>1.3</u> Context	<u>2</u> Significance
_____ Feature Date		<u>6</u> Plan Shape

PORCH

☐ Original
☐ Addition/Altered
☐ Removed/None

BUILDING MATERIALS

2.5 Structure System 4 Main Entrance
2.6 Primary Exterior Finish
_____ Secondary Exterior Finish

<u>0</u> Ethnic	_____ Builder
<u>2.8</u> Style	_____ Engineer
_____ Fieldwork Date	_____ Designer Architect

_____ Other Information

SHSND USE

_____ Soil Association	_____ Ecozone	_____ Area Signf	_____ MS Number
_____ Soil Association	_____ Ecozone	_____ Area Signf	_____ MS Number
<input type="checkbox"/> CR Type	<input type="checkbox"/> Verified Site	<input type="checkbox"/> Non-Site	<input type="checkbox"/> E C F <input type="checkbox"/> T F
<input type="checkbox"/> State Registry	<input type="checkbox"/> National Register		

Coder _____ Date Coded _____

NDCRS ARCHITECTURAL SITE FORM
Page 2

64

Field Code PE-86-CS-1

SITS NUMBER 32CS40

FEATURE # 03

NAME IN NAME BLOCK _____

BASEMENT	FOUNDATION MATERIALS	STORIES	CORNICE	ROOF TYPE	DATING METHOD
<input type="checkbox"/> yes	<input type="checkbox"/> Brick	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Gable	<input type="checkbox"/> Plat Map(s)
<input checked="" type="checkbox"/> no	<input type="checkbox"/> Concrete Block	<input type="checkbox"/> 1 1/2	<input type="checkbox"/> Brick	<input type="checkbox"/> Hipped	<input type="checkbox"/> County Atlas
<input type="checkbox"/> unknown	<input type="checkbox"/> Fieldstone	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Deck	<input type="checkbox"/> Date Block
<input type="checkbox"/> other	<input type="checkbox"/> Cut Stone	<input type="checkbox"/> 2 1/2	<input type="checkbox"/> Wood	<input type="checkbox"/> Gambrel	<input type="checkbox"/> Sanborn Map(s)
	<input checked="" type="checkbox"/> Poured Concrete	<input type="checkbox"/> 3	<input type="checkbox"/> Other	<input type="checkbox"/> Flat	<input type="checkbox"/> Topo Map(s)
	<input type="checkbox"/> Refaced	<input type="checkbox"/> Other		<input type="checkbox"/> Other	<input type="checkbox"/> Other
WINDOWS	<input type="checkbox"/> Unknown				
	<input type="checkbox"/> Other				
<input type="checkbox"/> Original					
<input type="checkbox"/> Altered					

FEATURE DESCRIPTION & STATEMENT OF INTEGRITY Feature #3 is located adjacent to Feature #2. It is a square frame storage shed; single story, covered by horizontal laid wood siding, with a gable roof.

SIGNIFICANCE

☐ SIGNIFICANT

☒ NOT SIGNIFICANT

<input type="checkbox"/> Work of Master	<input type="checkbox"/> Visual Landmark	<input checked="" type="checkbox"/> Too new
<input type="checkbox"/> High Artistic Values	<input type="checkbox"/> Associated with significant event	<input type="checkbox"/> Lacking integrity
<input type="checkbox"/> Rep. of type, period, method of construction	<input type="checkbox"/> Associated with devel. of locality	<input checked="" type="checkbox"/> Not High Style
<input type="checkbox"/> Other _____	<input type="checkbox"/> Associated with significant person	<input checked="" type="checkbox"/> Other

JUSTIFICATION OF SIGNIFICANCE The feature is not significant. It has no architectural merit, is not the work of a master and is not associated with a famous person or event.

Recorded by Mervin G. Floodman, Nick G. Franke

Date June 18, 1986

SITS # 32 C.S. 40
State County Site Number

Field Code P.E.8.6.C.S.1 Site Name M.T. J.L.N.D. F.A.R.M.
Field Code _____ Site Name _____

Map Quad W.E.S.T. F.A.R.G.O. S.O.U.T.H.
Map Quad _____

LTL	Twp	<u>1.3.9</u>	R	<u>0.4.9</u>	Sec	<u>2.0</u>	QQQ	<u>5</u>	QQ	<u>8</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

City R.U.R.A.L. W.E.S.T. F.A.R.G.O.

Street # _____

Street # _____

Street Name _____

Street Name _____

of Features 0.5

FEATURE DATA

0.4 Feature #
_____ Const Date
_____ Feature Date

5.5 Feature Type
2.6 Context

7 Condition
2 Significance
3 Plan Shape

PORCH

_____ Original
_____ Addition/Altered
_____ Removed/None

BUILDING MATERIALS

2.5 Structure System
2.6 Primary Exterior Finish
_____ Secondary Exterior Finish

4 Main Entrance

0 Ethnic
2.8 Style

_____ Builder
_____ Engineer
_____ Designer Architect

0.6 1.8 8.6 Fieldwork Date

_____ Other Information

_____ Soil Association	_____ Ecozone	_____ Area Signf	_____ MS Number
_____ Soil Association	_____ Ecozone	_____ Area Signf	_____ MS Number
_____ CR Type	_____ Verified Site	_____ Non-Site	_____ E C F _____ T F
_____ State Registry	_____ National Register		

Coder _____

Date Coded _____

I. SITE I.D.

II. SITE DESCRIPTION

SHSND USE

NDCRS ARCHITECTURAL SITE FORM
Page 2

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Field Code PE-86-CS-1

SITS NUMBER 32CS40

FEATURE # 04 NAME IN NAME BLOCK _____

BASEMENT	FOUNDATION MATERIALS	STORIES	CORNICE	ROOF TYPE	DATING METHOD
<input type="checkbox"/> yes	<input type="checkbox"/> Brick	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Gable	<input type="checkbox"/> Plat Map(s)
<input checked="" type="checkbox"/> no	<input type="checkbox"/> Concrete Block	<input type="checkbox"/> 1 1/2	<input type="checkbox"/> Brick	<input type="checkbox"/> Hipped	<input type="checkbox"/> County Atlas
<input type="checkbox"/> unknown	<input type="checkbox"/> Fieldstone	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Deck	<input type="checkbox"/> Date Block
<input type="checkbox"/> other	<input type="checkbox"/> Cut Stone	<input type="checkbox"/> 2 1/2	<input type="checkbox"/> Wood	<input type="checkbox"/> Gambrel	<input type="checkbox"/> Sanborn Map(s)
	<input checked="" type="checkbox"/> Poured Concrete	<input type="checkbox"/> 3	<input type="checkbox"/> Other	<input type="checkbox"/> Flat	<input type="checkbox"/> Topo Map(s)
	<input type="checkbox"/> Refaced	<input type="checkbox"/> Other		<input type="checkbox"/> Other	<input type="checkbox"/> Other
WINDOWS	<input type="checkbox"/> Unknown				
	<input type="checkbox"/> Other				
<input type="checkbox"/> Original					
<input type="checkbox"/> Altered					

FEATURE DESCRIPTION & STATEMENT OF INTEGRITY The feature is a single car garage. The door is on the west end and is an overhead sliding type. There is an additional entrance on the southeast side. It is a rectangular single story structure, covered by horizontally laid milled lumber siding, with a gable roof. The wood siding is painted white and the roof has interlocking white shingles.

SIGNIFICANCE

SIGNIFICANT

NOT SIGNIFICANT

☐ Work of Master
☐ High Artistic Values
☐ Rep. of type, period, method of construction
☐ Other _____

☐ Visual Landmark
☐ Associated with significant event
☐ Associated with devel. of locality
☐ Associated with significant person

☒ Too new
☐ Lacking integrity
☒ Not High Style
☒ Other

JUSTIFICATION OF SIGNIFICANCE The feature is not significant as it is not architecturally unique, the work of a master or associated with an important historical person or event.

Recorded by Mervin G. Floodman, Nick G. Franke

Date June 18, 1986

NDURS SITE FORM
ARCHITECTURAL SITES

Page 1

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SITS # 3.2 C.S 4.0
State County Site Number

Field Code PE86CS1 Site Name _____
Field Code _____ Site Name _____

Map Quad _____
Map Quad _____

LTL	Twp	<u>139</u>	R	<u>049</u>	Sec	<u>20</u>	QQQ	<u>5</u>	QQ	<u>8</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

City RURAL WEST FARGO

Street # _____ Street # _____

Street Name _____ Street Name _____

of Features 0.5

FEATURE DATA

<u>0.5</u> Feature #	<u>6.1</u> Feature Type	<u>7</u> Condition
_____ Const Date	<u>1.3</u> Context	<u>2</u> Significance
_____ Feature Date		<u>3</u> Plan Shape

PORCH

BUILDING MATERIALS

<input type="checkbox"/> Original	<u>2.5</u> Structure System	<u>4</u> Main Entrance
<input type="checkbox"/> Addition/Altered	<u>2.6</u> Primary Exterior Finish	
<input type="checkbox"/> Removed/None	_____ Secondary Exterior Finish	

<u>0</u> Ethnic	<input type="checkbox"/> Builder
<u>2.8</u> Style	<input type="checkbox"/> Engineer
<u>0.6</u> <u>1.8</u> <u>1.6</u> Fieldwork Date	<input type="checkbox"/> Designer Architect

_____ Other Information

_____ Soil Association	_____ Ecozone	<input type="checkbox"/> Area Signf	_____ MS Number
_____ Soil Association	_____ Ecozone	<input type="checkbox"/> Area Signf	_____ MS Number
<input type="checkbox"/> CR Type	<input type="checkbox"/> Verified Site	<input type="checkbox"/> Non-Site	<input type="checkbox"/> E C F <input type="checkbox"/> T F
<input type="checkbox"/> State Registry	<input type="checkbox"/> National Register		

Coder _____ Date Coded _____

I. SITE I.D.

II. SITE DESCRIPTION

SHSND USE

SITS NUMBER 32CS40

FEATURE # 05

FEATURE DESCRIPTION & STATEMENT OF INTEGRITY This feature is a storage grainary. It is a rectangular structure covered by horizontally laid milled lumber with a gable roof.

SIGNIFICANT

1 NOT SIGNIFICANT

X Too new
 Lacking integrity
X Not High Style

Other

Date June 18, 1986

Field Code PE-86-CS-1

SITS NUMBER 32CS40

ACCESS From West Fargo, go south on Sheyenne Street (Cass County #17). Go under I-94 overpass and south on the highway just past the I-94 on-ramp. Turn left (east) immediately past the on-ramp and follow the gravel road, drive to the site about 0.25 miles.

DESCRIPTION OF SITE The site consists of a small framstead currently owned by M.T. Lund. The site consists of five features: a main house, two storage buildings, a garage and a grainary. Also associated with it are windbreaks, gardens, flower beds, a driveway and an earthen dike on the east edge of the site. The site lies just south of the I-94 right-of-way.

(see the continuation sheet for the Deed and Title Search)

FEATURES Feature 1, house
Feature 2, former bunkhouse currently used as a storage shed.
Feature 3, storage shed
Feature 4, garage
Feature 5, grainary

SITE AREA 3,496 ^{square} (in meters)

OWNER'S NAME, ADDRESS, PHONE # M.T. Lund, West Fargo, North Dakota.

PROJECT TITLE Sheyenne River Project, Cass County, North Dakota

REPORT TITLE Phase I Cultural Resources Inventory of the Sheyenne River Flood Control Project Area

PROJECT SUPERVISOR Mervin G. Floodman REPORT AUTHOR Mervin G. Floodman

STATEMENT OF SIGNIFICANCE AND INTEGRITY The site retains its original integrity and is in good physical shape. The age of the buildings is not known. The land was originally patterned in 1878 but the site considerably post-dates this time. The poured concrete foundation and building condition and style suggest twentieth century construction.

Continuation Form

Site Number 32CS40

Item No.

Page 3

DESCRIPTION OF SITE:

Deed and Title Search/Cass County Courthouse

1) Book D. p. 70. USA to Sarah Nelson, 4/11/1878

2) Book D. p. 71, Sarah Nelson to William Stapleton, 4/11/1878.

3) Book 136, p. 205, Document #152069, William Stapleton to Anna H.

Mueller, Marie V. Jellison, Joan E. Heffernan, and William P. Stapleton

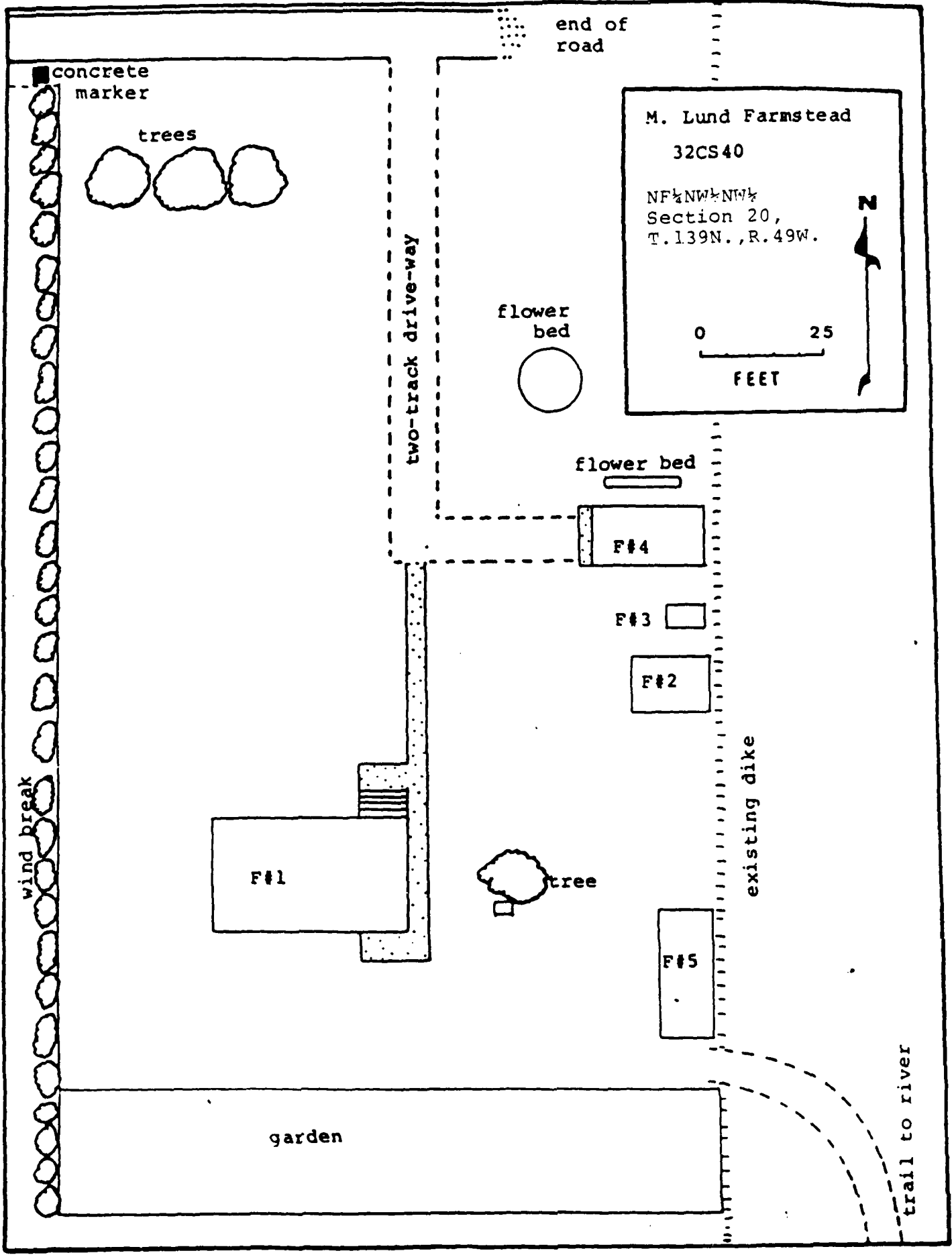
4) Book 142, p. 90, Document #162846, Mueller, Jellison, Heffernan and

Stapleton to Ole Rustad, 2/8/28.

5) Book 233, p. 175, Ole Rustad to Millard T. and Oscar J. Lund 6/14/55.

6) Book 287, p. 483, Oscar J. Lund and Betsy R. Lund to Millar T. Lund,
10/9/62.

Recorded by _____ Date _____



Shevenne River Project
Cass County, North Dakota



Overview toward the south, M.T. Lund Farm.

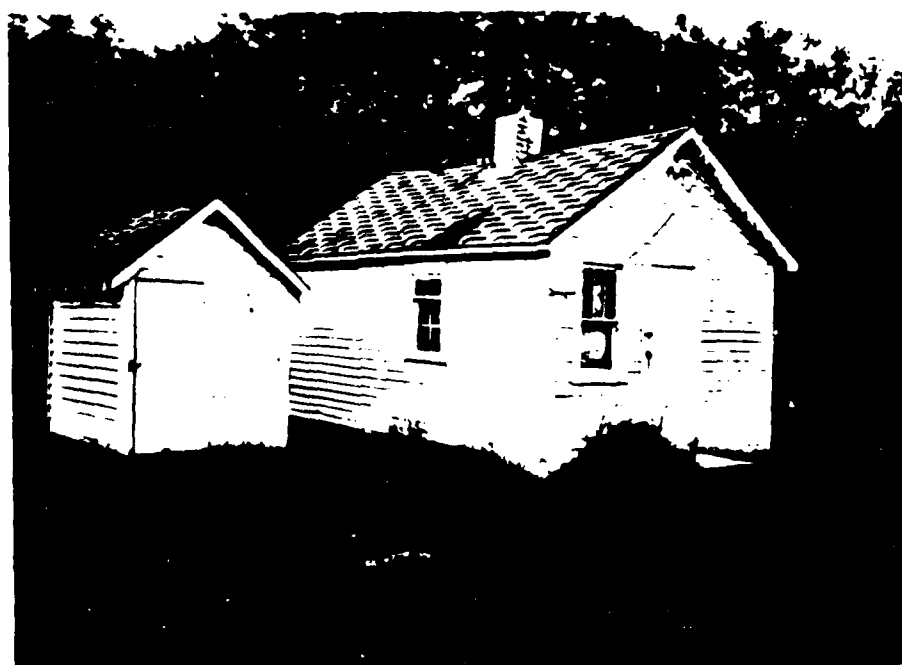


Feature 1, toward the southwest.

Sheyenne River Project
Cass County, North Dakota

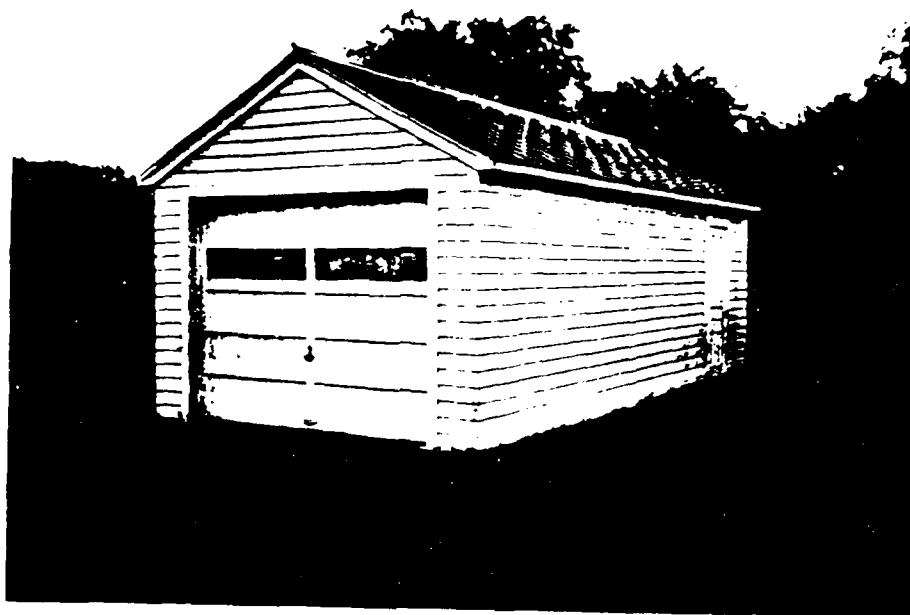


Feature 1 toward the northeast.



Features 2 and 3 toward the southeast.

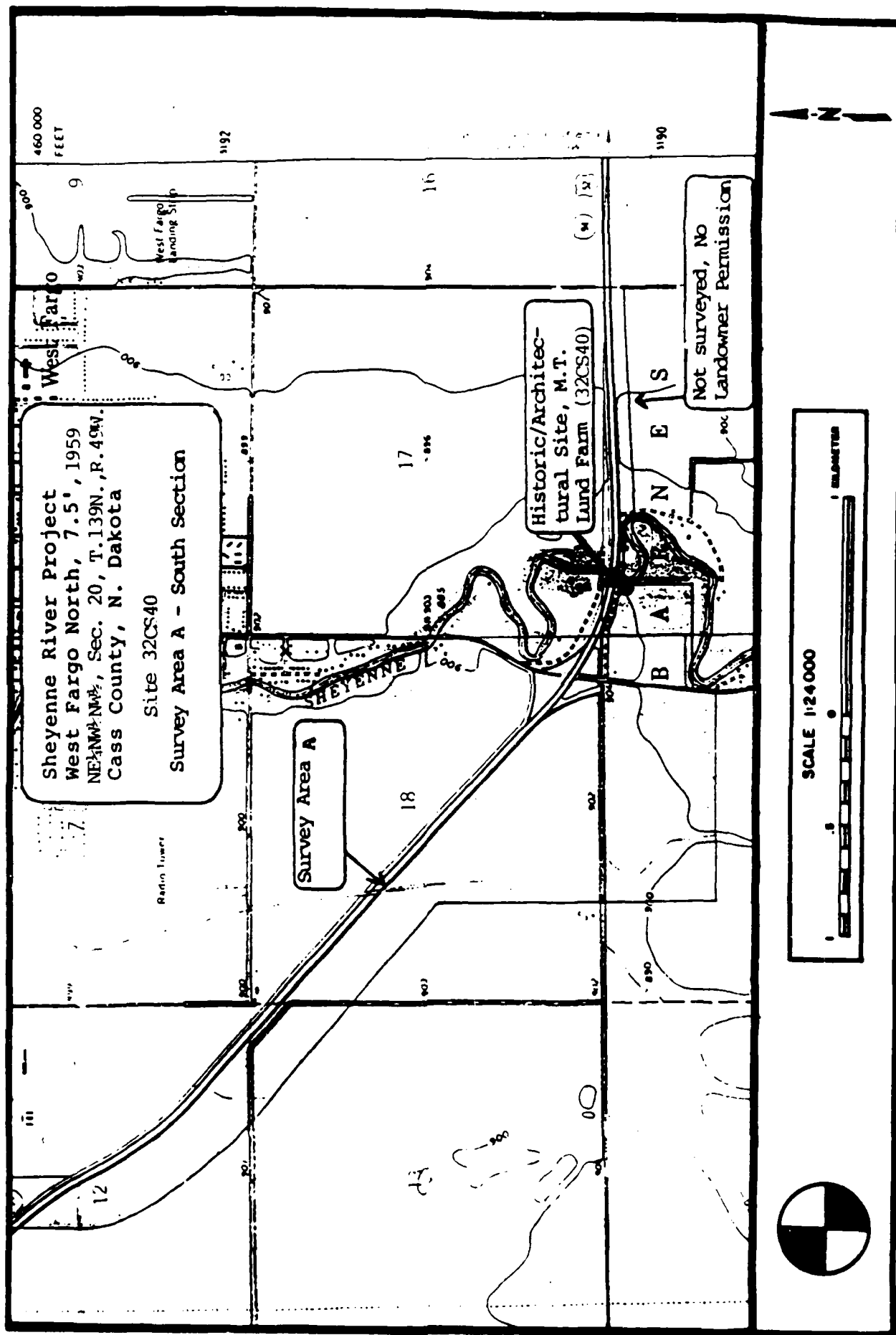
Shevenne River Project
Cass County, North Dakota



Feature 4 toward the northeast.



Feature 5 toward the southeast.



NDCRS SITE FORM
HISTORICAL ARCHEOLOGICAL SITES

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Page 1

I. SITE I.D.

SITS # 32 State County Site Number

Field Code P.E.8.6.I.F.1 Site Name _____
Field Code _____ Site Name _____

Map Quad W.E.S.T. F.A.R.G.O. S.O.U.T.H.
Map Quad _____

LTL	Twp	<u>138</u>	R	<u>049</u>	Sec	<u>19</u>	QQQ	<u>17</u>	QQ	<u>8</u>	Q	<u>17</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

II. SITE DESCRIPTION

FEATURE TYPE	CULTURAL MATERIAL	<u>10</u> Site Type
<input type="checkbox"/> Cm Scatter	<input type="checkbox"/> Bone	<u>13</u> Context
<input type="checkbox"/> Chimney	<input type="checkbox"/> Ceramics	
<input type="checkbox"/> Depression	<input type="checkbox"/> Charcoal	
<input type="checkbox"/> Dump	<input type="checkbox"/> Cloth	<u>10</u> Site Area
<input type="checkbox"/> Earthworks	<input type="checkbox"/> Faunal Remains	m. x m.
<input type="checkbox"/> Fortification	<input type="checkbox"/> Fire Cracked Rock	<u>0</u> Cultural Depth cm.
<input type="checkbox"/> Foundation	<input type="checkbox"/> Floral Remains	
<input type="checkbox"/> Grave	<input type="checkbox"/> Glass	<input type="checkbox"/> Depth Indicator
<input type="checkbox"/> Hearth	<input type="checkbox"/> Hide, Hair, Fur	
<input type="checkbox"/> Machinery	<input type="checkbox"/> Human Remains	Occupation Date
<input type="checkbox"/> Quarry/Mine	<input type="checkbox"/> Masonry	Begin _____ End _____
<input type="checkbox"/> Rock Art	<input type="checkbox"/> Metal	<u>1900</u> <u>1930</u>
<input type="checkbox"/> Trail	<input type="checkbox"/> Plastic	Basis For Dating
<input type="checkbox"/> Wreck	<input type="checkbox"/> Rubber	<u>8</u>
<input type="checkbox"/> Other	<input type="checkbox"/> Shell	<u>8</u> Cm Density
	<input type="checkbox"/> Wood	
	<input type="checkbox"/> Other	<u>1</u> Isolated Find

III. ENVIRONMENT

<u>1</u> Landform 1	<u>08</u> Landform 2	<u>9</u> Slope/Exposure	<u>19</u> Ecosystem
<input type="checkbox"/> Landform 1	<input type="checkbox"/> Landform 2	<input type="checkbox"/> Slope/Exposure	<input type="checkbox"/> Ecosystem
Elevation	Drainage System	View, Degree	View, Distance
<u>278</u> m.	<u>SHEYENNE RIVER</u>	<u>5</u>	<u>5</u>
Dist Perm Water	Perm Water Type	Dist Seas Water	Seas Water Type
<u>30</u> m.	<u>3</u>	_____ m.	<input type="checkbox"/>

IV. C.R.M.

<u>3</u> Ownership	<input type="checkbox"/> Ownership
<u>061786</u> Fieldwork Date	_____ Fieldwork Date
<input type="checkbox"/> Site Condition	<u>0</u> Collection
	<u>0</u> Test/Probe
	<u>0</u> Excavation
Additional Information	<u>1</u> Management Recommendation

SHSND USE

<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	_____ MS Number
<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	_____ MS Number
<input type="checkbox"/> CR Type	<input type="checkbox"/> Verified Site	<input type="checkbox"/> Non-Site	<input type="checkbox"/> E C F <input type="checkbox"/> T F
<input type="checkbox"/> State Registry	<input type="checkbox"/> National Register		

Coder

Date Coded

1.
2.
3.
4.
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7.
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9.

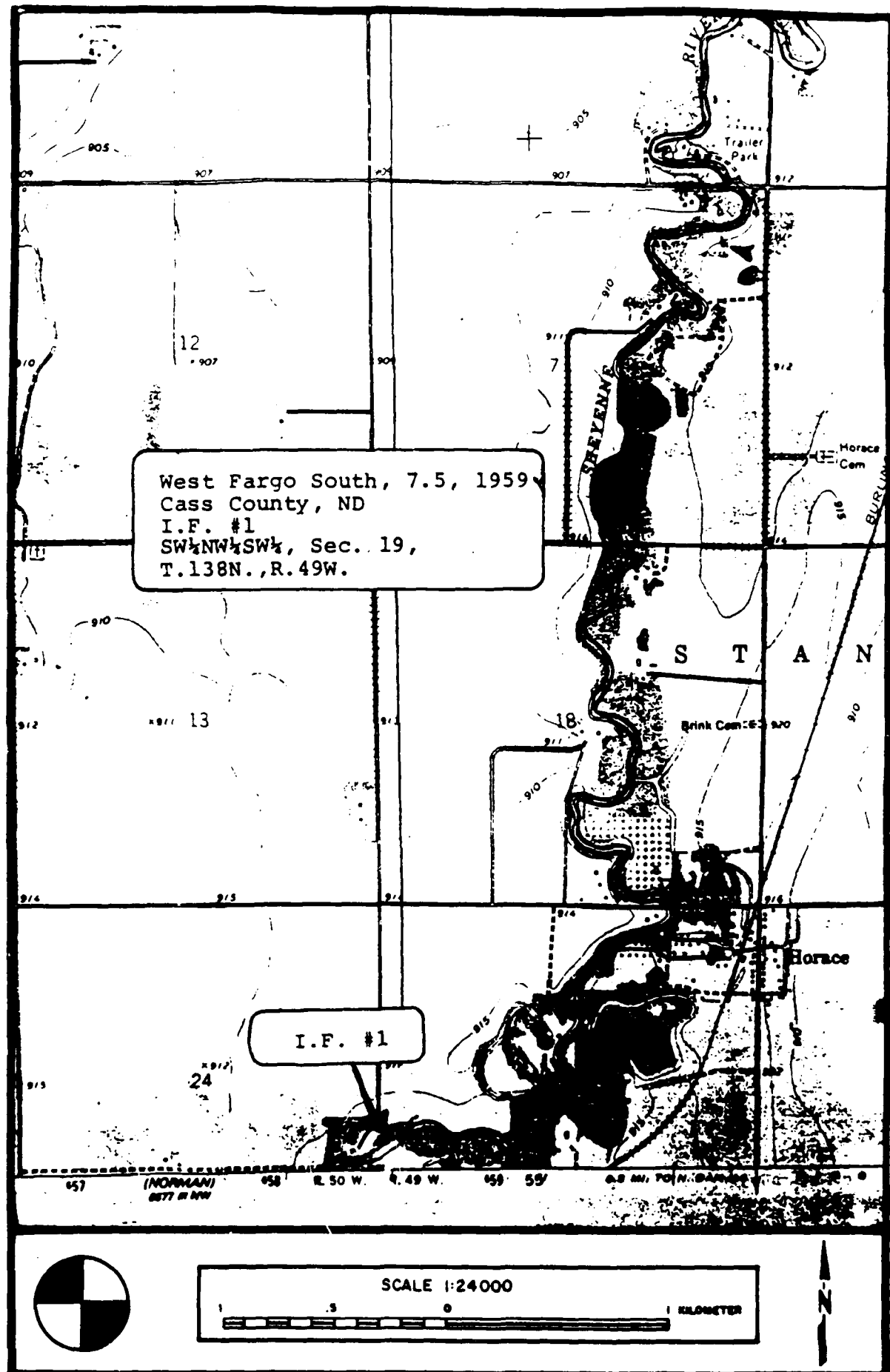
Shevenne River Project
Cass County, North Dakota



Isolated Find, Field Code PE-86-CS-1,
view toward the east.



Isolated Find, Field Code PE-86-CS-1,
view toward the northeast.



NDCRS SITE FORM
 ARCHEOLOGICAL SITES

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 Page 1

SITS # 32 C.S. 42
 State County Site Number

Field Code P.E. 8.7.C.S.1 Site Name _____
 Field Code _____ Site Name _____

Map Quad WEST FARGO NORTH
 Map Quad WEST FARGO SOUTH

LTL	Twp	<u>139</u>	R	<u>050</u>	Sec	<u>11</u>	QQQ	<u>18</u>	QQ	<u>8</u>	Q	<u>5</u>
LTL	Twp	<u>139</u>	R	<u>050</u>	Sec	<u>11</u>	QQQ	<u>2</u>	QQ	<u>5</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

I. SITE I.D.

II. SITE DESCRIPTION

FEATURE TYPE	CULTURAL MATERIAL	m. x m.
<input type="checkbox"/> Conical Timber Lodge	<input type="checkbox"/> Bone	<u>1000</u> Site Area
<input type="checkbox"/> CM Scatter	<input type="checkbox"/> Ceramics	<u>_____</u> Cultural Depth cm
<input type="checkbox"/> Earthlodge Village	<input type="checkbox"/> Charcoal	<input type="checkbox"/> Depth Indicator
<input type="checkbox"/> Earthworks	<input type="checkbox"/> Copper	
<input type="checkbox"/> Fortification	<input type="checkbox"/> Faunal Remains	CULTURAL/TEMPORAL
<input type="checkbox"/> Grave	<input type="checkbox"/> Fire Cracked Rock	AFFILIATION
<input type="checkbox"/> Hearth	<input type="checkbox"/> Floral Remains	=====
<input type="checkbox"/> Jump	<input type="checkbox"/> Fossil	<input type="checkbox"/> Paleo
<input type="checkbox"/> Mound	<input type="checkbox"/> Hide, Hair, Fur	<input type="checkbox"/> Archaic
<input type="checkbox"/> Other Rock Features	<input type="checkbox"/> Human Remains	<u>5</u> Late Prehistoric
<input type="checkbox"/> Pit	<input type="checkbox"/> Projectile Point	<input type="checkbox"/> Historic
<input type="checkbox"/> Quarry/Mine	<input type="checkbox"/> Shell	<input type="checkbox"/> Period Unknown
<input type="checkbox"/> Rock Art	<input type="checkbox"/> Stone, Chipped	
<input type="checkbox"/> Rock Shelter	<input type="checkbox"/> Stone, Ground	
<input type="checkbox"/> Stone Circle	<input type="checkbox"/> Trade Good	
<input type="checkbox"/> Trail	<input type="checkbox"/> Wood	
<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Other	
<input type="checkbox"/> Isolated Find	<input type="checkbox"/> CM Density	<u>3</u> Basis for Dating

III. ENVIRONMENT

<u>6</u> Landform 1	<u>15</u> Landform 2	<u>10</u> Slope/Exposure	<u>18</u> Ecosystem
<input type="checkbox"/> Landform 1	<input type="checkbox"/> Landform 2	<input type="checkbox"/> Slope/Exposure	<input type="checkbox"/> Ecosystem
Elevation	Drainage System	View, Degree	View, Distance
<u>275</u> m.	<u>_____</u> S.H.E.Y.E.N.N.E. R.I.V.E.R	<u>4</u>	<u>3</u>
Dist Perm Water	Perm Water Type	Dist Seas Water	Seas Water Type
<u>387</u> m.	<u>3</u>	<u>30</u> m.	<u>4</u>

IV. C.R.M.

<u>3</u> Ownership	<input type="checkbox"/> Ownership
<u>10.511.418.7</u> Fieldwork Date	<u>10.511.518.7</u> Fieldwork Date
<u>1</u> Site Condition	<u>2</u> Collection
<u>0</u> Test/Probe	<u>0</u> Excavation
Additional Information	
<u>4</u> Management Recommendation	

SHSND USE

<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	<input type="checkbox"/> MS Number
<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	<input type="checkbox"/> MS Number
<input type="checkbox"/> CR Type	<input type="checkbox"/> Verified Site	<input type="checkbox"/> Non-Site	<input type="checkbox"/> E C F <input type="checkbox"/> T F
<input type="checkbox"/> State Registry	<input type="checkbox"/> National Register		

Coder _____ Date Coded _____

1. Access From West Fargo, head west on Interstate 94. Proceed to the first exit one mile west of the last West Fargo exit. Turn south and cross the interstate on the overpass. Turn east on the old paved highway just past the eastbound freeway entrance. Follow this road easterly about 0.5 mile to the Travel Host Motel West Fargo billboard sign. (see continuation sheet)
2. Description of Site The site is situated on a terrace above the south bank of a small intermittent stream course which is a tributary to the Sheyenne River. Cultural materials are widely scattered in the cultivated field along the stream extending some 220 m north-south by 50 m east-west. These materials are most heavily concentrated in the center of the site, with a dispersed scatter on the periphery. Overall, the current density is fairly sparse. Associated with the cultural artifacts is a dense scatter of fractured, burnt and calcined bone, some clam shell fragments, cracked rock and cobbles. The relevance of the bone to the site is not known. The site is tentatively identified as a Late Woodland occupation. Projectile points are small and the ceramics are similar to those illustrated by Scott Anfinson (1979) as Early Phase Blackduck. Blackduck is dated from A.D. 800-A.D. 1400 by Anfinson. (see References, item 18, page 3).

3. Description of Cultural Materials (Quantify and identify)

Six prehistoric pottery sherds grit-tempered cord roughened and cord-impressed.
One corner-notch projectile point of Knife River flint.
One serrated projectile point tip/midsection of chert.
One biface fragment fire-grained quartzite.
Fourteen flakes of Knife River flint and chert.
(see continuation sheet for detailed listing of materials)

23 # of items of cultural material observed9 # Collected4. Artifact Repository State Historical Society of North Dakota, Bismarck.5. Description of Subsurface Testing No subsurface testing was conducted at the site.

6. Current Use of Site Cultivated field in soybeans fallow when surveyed.
7. Owner's Name/Address G.M. Libbrecht, Box 32A, West Fargo, North Dakota.
8. Vegetation The field was fallow and just seeded when surveyed. There was no vegetation cover.
9. Cover (% of visible ground) 100%.
10. Man-hours spent on site Four hours.
11. Project Title West Fargo Flood Control Project.
P.I. Mervin G. Floodman
12. Report Title Phase I Cultural Resources Investigation of a Proposed Flood Control Project along the (see continuation) Author Mervin G. Floodman
13. Other Published References None.
14. Description of Collections Observed None.
15. Owner-Address of Collections Observed N/A.
16. Statement of Integrity The site area is currently under cultivation. The plowzone has disturbed the context of the upper part of the site. The extent of cultural remains beneath the plowzone has not been determined. The potential for intact or stratified deposits undisturbed along the stream terrace does exist.
17. Statement of Significance The significance and NRHP eligibility of the site is undetermined, pending a subsurface evaluation of the nature and extent of the site's intact cultural deposits beneath the modern plowzone. This evaluation should precede any planned construction impacts to the site area.
18. Comments/References Anfinson, Scott, editor
1979 A Handbook of Minnesota Prehistoric Ceramics.
Occasional Publications in Minnesota Anthropology
No. 5. Minnesota Archaeological Society, Fort
Snelling, Minnesota.

Recorded by _____ Date _____

TOPO:

SEE ATTACHED

Photocopy, in 8 $\frac{1}{2}$ "x11" format,
the portion of the 7.5' U.S.G.S.
topographic quadrangle that
shows the location of the site
and surrounding area. Mark the
boundaries of the site on the
photocopy.

Attach the photocopy as a
separate page of the Site
Form following the Map &
Photo Section.

B.W. ☒ Color ☐

Photo I.D. Code _____

TO SSW →

Storage Location _____

SKETCH MAP

Sketch Map:

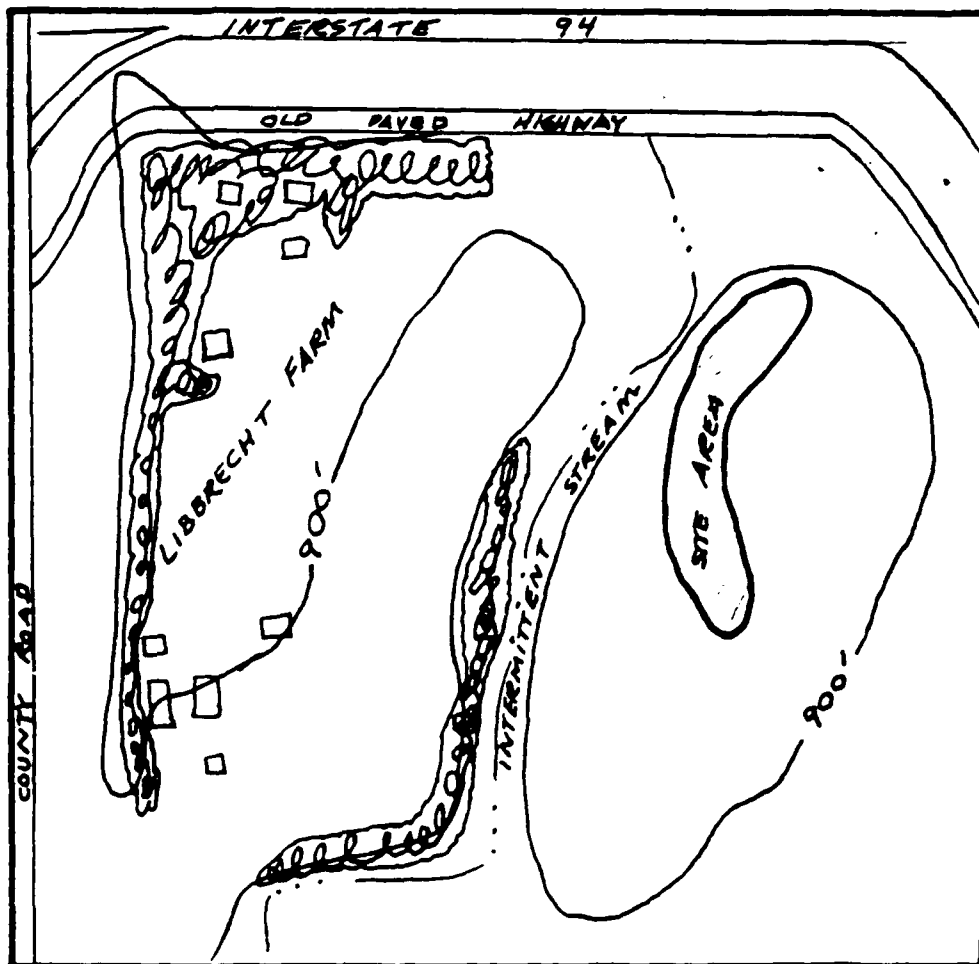
Include north arrow,
individual numbered
features, artifact
loci, and road or
street names.

Architectural sites:
include roof ridge(s)
and dimensions of
site.

Map Key:



N
↑
COUNTY ROAD



Map Scale:

Recorded by 11Date July 15 1987

32CS42

Continuation Sheet

page 5

Descriptive Section, Page 2 (cont.)

1. Access: The site lies in a field southwest of a billboard, adjacent to a stream course.

3. Description of Cultural Materials (Quantify and identify)

	<u>Artifact Description</u>	<u>Azimuth</u>	<u>Meters Distance</u>	<u>Collected</u>
1	grey chert uniface	185°	112	no
2	white chert flake	187°	104	no
3	variegated chert flake	215°	58	no
4	white chert flake	230°	27.80	no
5	grey chert flake	266°	25.30	no
6	Swan River chert primary flake	255°	19.05	no
7	utilized secondary flake variegated chert	280°	10.25	no
8	serrated chert point midsection	241°	8.50	yes
9	tertiary flake Knife River flint	269°	18.85	no
10	Knife River flint corner notched	299°	27.75	yes
11	biface tan quartzite	305°	27.40	yes
12	secondary flake white chert	318°	22.80	no
13	cord impressed potsherd	12°	11.80	yes
14	cord impressed potsherd	28°	15.10	yes
15	Knife River flint utilized secondary	26°	20.50	no
16	neck pottery sherd	25°	4.95	yes
17	cord roughened pottery sherd	64°	16.30	yes
18	Swan River chert flake	82°	7.70	no
19	tertiary flake white chert	17°	44	no
20	pottery sherd	21°	93.5	yes
21	flake red and cream chert	30°	60	no
22	tertiary flake white chert	34°	64	no
23	cord-marked pottery sherd	40°	59.5	yes

Descriptive Section, Page 3 (cont.)

12. Report Title: ...Sheyenne River, at West Fargo, Cass County, North Dakota.



INTERSTATE 94

POWERS ELEVATION

OLD PAVED HIGHWAY

DREWEAY

SIGN

N

CULTIVATED FIELD

STREAM

INTERMITTENT

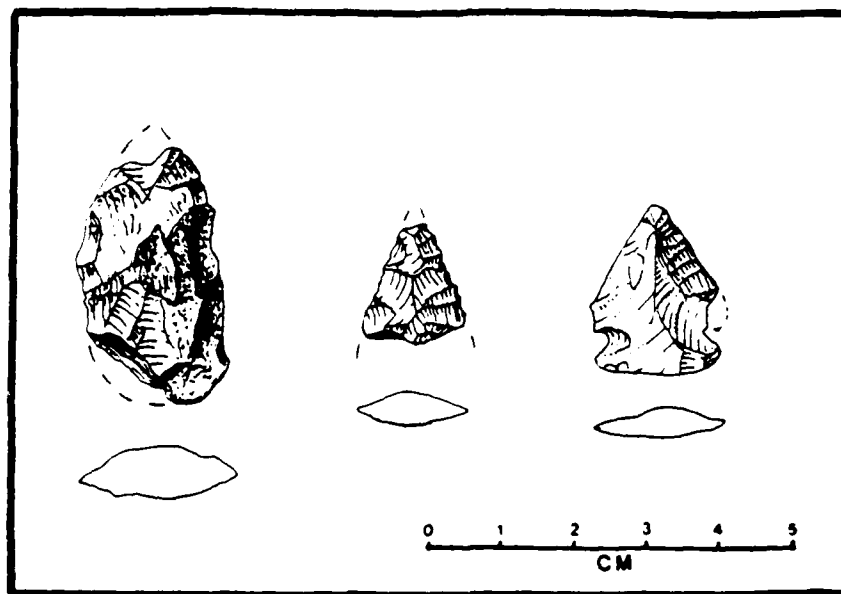
CULTIVATED FIELD

32CS42

0 30 60
METERS

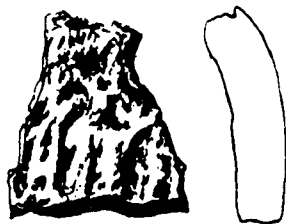
SITE LIMITS

- UNCOLLECTED LITHIC ARTIFACT
- x COLLECTED LITHIC ARTIFACT
- + COLLECTED POTTERY SHERD
- △ TEMPORARY DATUM
- FIELD EDGE
- SIGN - TRAVEL HOST MOTEL
WEST FARGO

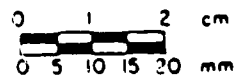


Lithic Artifacts from Site 32CS42

WEST FARGO FLOOD CONTROL PROJECT, NORTH DAKOTA



Ceramic Artifacts from 32CS42



32CS42
West Fargo Flood Control Project
NW $\frac{1}{4}$ NE $\frac{1}{4}$ and NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 11,
T.139N., R.50W.,
Cass County, North Dakota



View towards the north-northeast

CULTURAL RESOURCES INVESTIGATION OF A PROPOSED FLOOD
CONTROL PROJECT ALON. (U) POWERS ELEVATION DENVER CO
ARCHAEOLOGY DEPT M G FLOODMAN 15 JAN 89

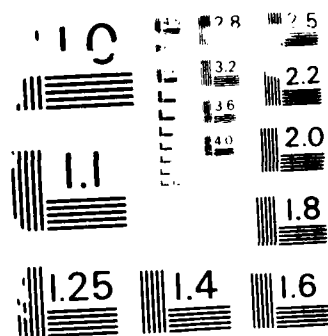
2/2

DACH37-86-M-1052

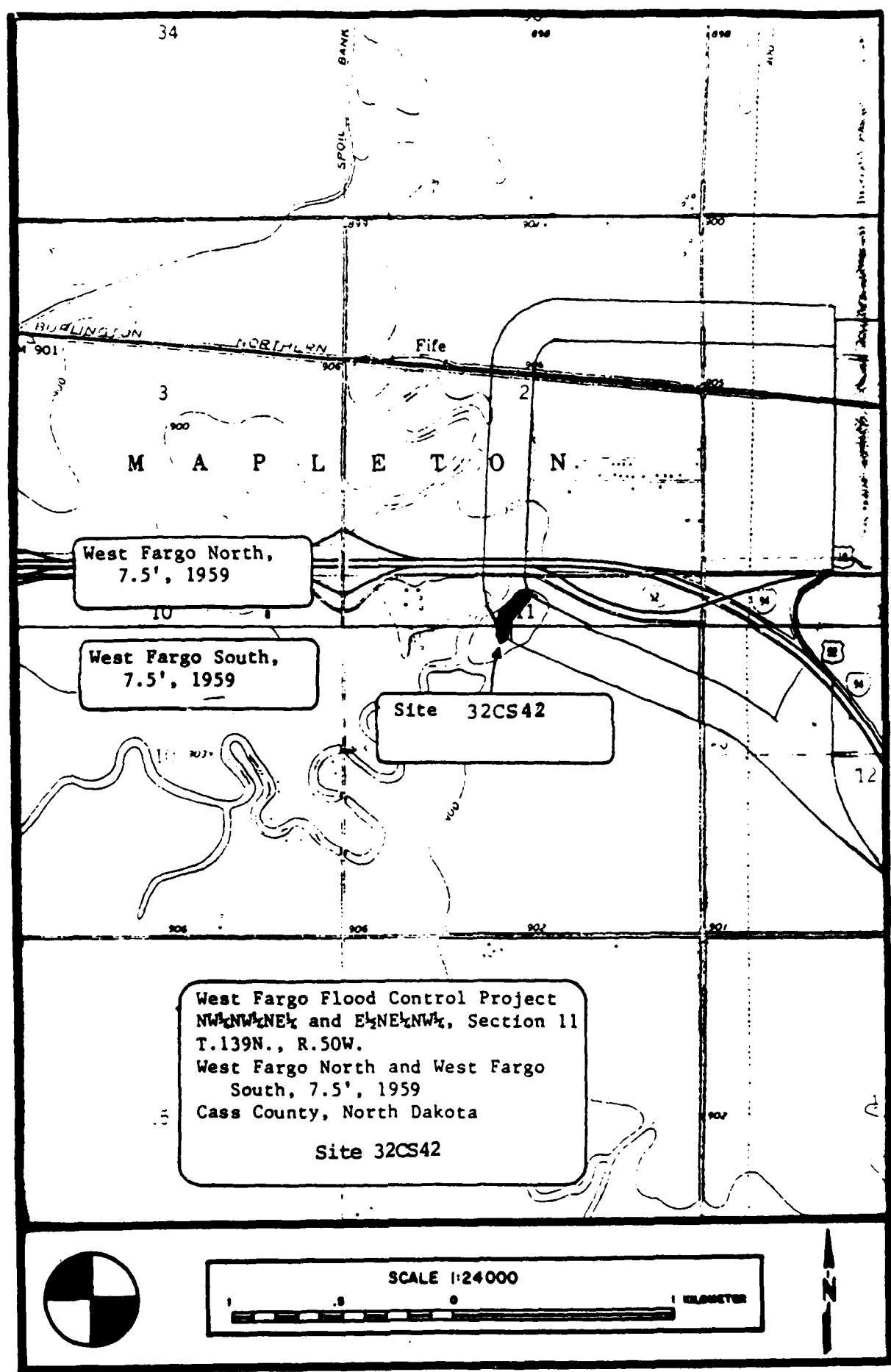
F/G 5/6

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100
100
100
100
100



U.S. GOVERNMENT PRINTING OFFICE: 1963



NDCRS SITE FORM
 ARCHEOLOGICAL SITES

Page 1

33

SITS # 32 CS 43
 State County Site Number

Field Code P.E.B.7.C.S.3 Site Name _____
 Field Code _____ Site Name _____

Map Quad W.E.S.T. F.A.R.G.O. N.O.R.T.H.
 Map Quad _____

LTL	Twp	<u>139</u>	R	<u>050</u>	Sec	<u>02</u>	QQQ	<u>18</u>	QQ	<u>6</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

I. SITE I.D.

II. SITE DESCRIPTION

FEATURE TYPE	CULTURAL MATERIAL	_____ <u>2.2</u> <u>0.0</u> m. Site Area
<input type="checkbox"/> Conical Timber Lodge	<input type="checkbox"/> Bone	_____ Cultural Depth cm
<input checked="" type="checkbox"/> CM Scatter	<input type="checkbox"/> Ceramics	<input type="checkbox"/> Depth Indicator
<input type="checkbox"/> Earthlodge Village	<input type="checkbox"/> Charcoal	
<input type="checkbox"/> Earthworks	<input type="checkbox"/> Copper	CULTURAL/TEMPORAL
<input type="checkbox"/> Fortification	<input checked="" type="checkbox"/> Faunal Remains	AFFILIATION
<input type="checkbox"/> Grave	<input type="checkbox"/> Fire Cracked Rock	=====
<input type="checkbox"/> Hearth	<input type="checkbox"/> Floral Remains	<input type="checkbox"/> Paleo
<input type="checkbox"/> Jump	<input type="checkbox"/> Fossil	<input type="checkbox"/> Archaic
<input type="checkbox"/> Mound	<input type="checkbox"/> Hide, Hair, Fur	<input type="checkbox"/> Late Prehistoric
<input type="checkbox"/> Other Rock Features	<input type="checkbox"/> Human Remains	<input type="checkbox"/> Historic
<input type="checkbox"/> Pit	<input type="checkbox"/> Projectile Point	<input checked="" type="checkbox"/> Period Unknown
<input type="checkbox"/> Quarry/Mine	<input type="checkbox"/> Shell	
<input type="checkbox"/> Rock Art	<input checked="" type="checkbox"/> Stone, Chipped	
<input type="checkbox"/> Rock Shelter	<input type="checkbox"/> Stone, Ground	
<input type="checkbox"/> Stone Circle	<input type="checkbox"/> Trade Good	
<input type="checkbox"/> Trail	<input type="checkbox"/> Wood	
<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Other	
<input type="checkbox"/> Isolated Find	<input checked="" type="checkbox"/> CM Density	<input type="checkbox"/> Basis for Dating

III. ENVIRONMENT

<input checked="" type="checkbox"/> Landform 1	<u>07</u>	Landform 2	<u>10</u>	Slope/Exposure	<u>18</u>	Ecosystem
<input type="checkbox"/> Landform 1	_____	Landform 2	_____	Slope/Exposure	_____	Ecosystem
Elevation	_____	Drainage System	_____	View, Degree	View, Distance	
<u>273</u> m.	_____	<u>S.H.E.Y.E.N.N.E. R.I.V.E.R.</u>	_____	<u>4</u>	<u>3</u>	
Dist Perm Water	<u>4023</u> m.	Perm Water Type	<u>3</u>	Dist Seas Water	<u>366</u> m.	Seas Water Type
						<u>4</u>

IV. C.R.M.

<u>3</u> Ownership	<input type="checkbox"/> Ownership	
<u>105115187</u> Fieldwork Date	_____ Fieldwork Date	
<input checked="" type="checkbox"/> Site Condition	<u>2</u> Collection	<u>0</u> Test/Probe
<input type="checkbox"/> Excavation	<u>0</u> Excavation	
Additional Information	<u>4</u> Management Recommendation	
_____	_____	

SHSND USE

<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	_____ MS Number
<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	_____ MS Number
<input type="checkbox"/> CR Type	<input type="checkbox"/> Verified Site	<input type="checkbox"/> Non-Site	<input type="checkbox"/> E C F <input type="checkbox"/> T F
<input type="checkbox"/> State Registry	<input type="checkbox"/> National Register		

Coder _____ Date Coded _____

1. Access From West Fargo, head west on Interstate 94. Proceed to the first exit one mile west of the last West Fargo exit. Turn north on the county road and proceed to the Burlington Northern railroad track crossing. Cross to the north side of the tracks and follow the edge of the field southeast about 300 feet past the siding for site. The site lies 123 m north in the field from the tracks.
2. Description of Site The site is situated in a cultivated field north of the Burlington Northern railroad tracks. The site area and surrounding terrain is essentially flat and featureless. The site is located over 350 m away from a small stream course to the west. The site consists of a scatter of lithic materials, fairly tightly concentrated. It extends some 40 m east-west by 55 m north-south. A light scatter of fragmented bone was noticed, associated with the site. No diagnostic artifacts were recovered to identify the cultural or temporal affiliation of the site.

3. Description of Cultural Materials (Quantify and identify)

One thin biface lateral edge fragment chert.

One thick biface/blank base of chert.

13 flakes and lithic items.

(see continuation sheet for detailed artifact list)

15 # of items of cultural material observed

2 # Collected

4. Artifact Repository State Historical Society of North Dakota, Bismarck.

5. Description of Subsurface Testing No subsurface testing was conducted at the site.

6. Current Use of Site Cultivated fields.
7. Owner's Name/Address Unknown.
8. Vegetation Fallow at the time of the survey, no vegetation was present.
9. Cover (% of visible ground) 100%.
10. Man-hours spent on site Two hours.
11. Project Title West Fargo Flood Control Project.
P.I. Mervin G. Floodman
12. Report Title Phase I Cultural Resources Investigation of a Proposed Flood Control Project (see continuation sheet) Author Mervin G. Floodman
13. Other Published References None.
14. Description of Collections Observed None.
15. Owner-Address of Collections Observed N/A.
16. Statement of Integrity The site area is currently under small grain cultivation. The modern utilization zone has disturbed the context of the upper portion of the site. The extent of the site beneath the plowzone has not been determined.
17. Statement of Significance The significance and NRHP eligibility of the site is undetermined pending a subsurface evaluation of the nature and extent of the site's intact cultural deposits beneath the plowzone. This evaluation should precede any planned construction impacts. The site lies outside of the current scope-of-work for the COE levee construction.
18. Comments/References

TOPO:

Photocopy, in 8 1/2"x11" format, the portion of the 7.5' U.S.G.S. topographic quadrangle that shows the location of the site and surrounding area. Mark the boundaries of the site on the photocopy.

SEE ATTACHED

Attach the photocopy as a separate page of the Site Form following the Map & Photo Section.

B.W. ☒ Color ☐

Photo I.D. Code _____

1- SW

Storage Location _____

SKETCH MAP

Sketch Map:

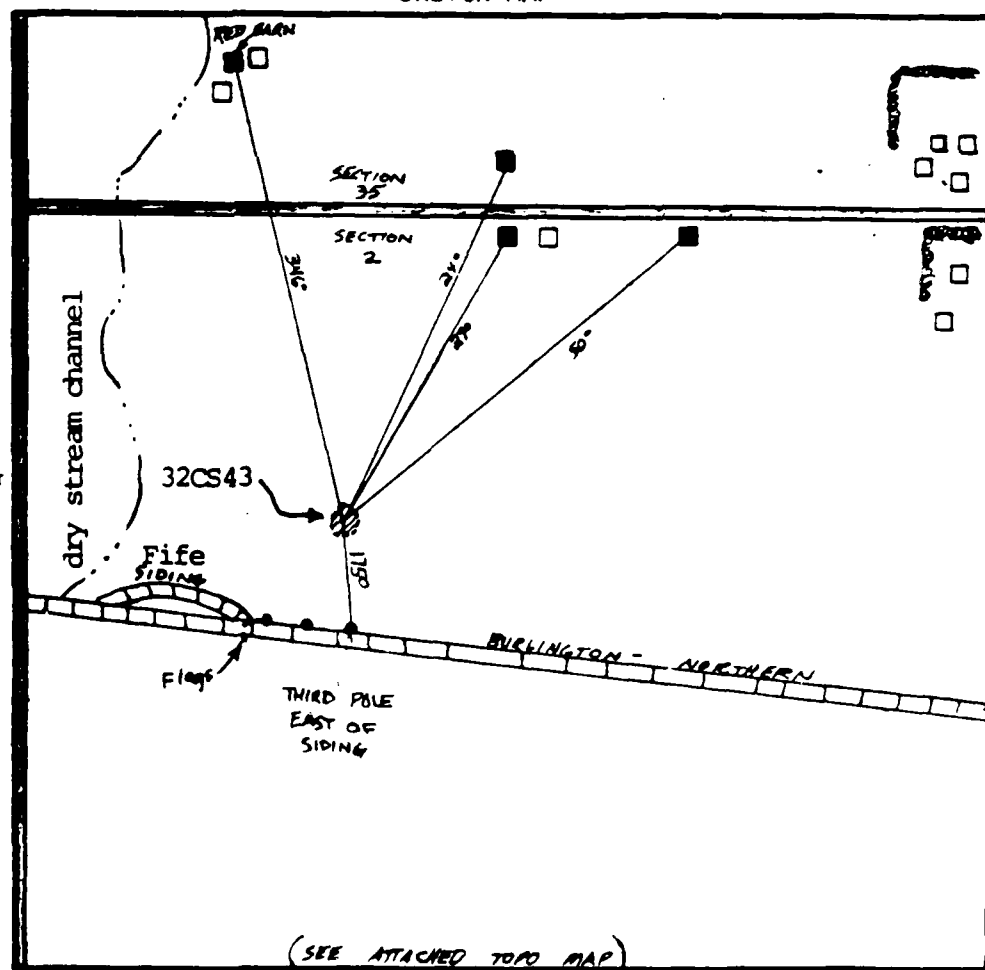
Include north arrow, individual numbered features, artifact loci, and road or street names.

Architectural sites: include roof ridge(s) and dimensions of site.

Map Key:

- COUNTY SECTION-LINE
 ROADWAYS
 RAILROAD
 Buildings used for triangulation of site datum
 WINDBREAKS
 STRUCTURES NOT TRIANGULATED

Map Scale:



(SEE ATTACHED TOPO MAP)

Recorded by M. E. [unclear]Date May 15, 1987

32CS43
Continuation Sheet
Page 5

Descriptive Section, Page 2

3. Description of Cultural Materials (Quantify and identify):

	Artifact Description	Azimuth	Meters	Collected
			Distance	
1	secondary flake chert	68°	11.8	no
2	biface fragment white chert	74°	11.4	yes
3	chalcedony shatter	74°	7.2	no
4	tertiary flake white chert	84°	13.8	no
5	tertiary flake white chert	86°	10.5	no
6	biface fragment white chert	97°	12.7	yes
7	secondary flake chert	108°	9.2	no
8	white chert flake	108°	9.2	no
9	white chert flake	113°	5.8	no
10	white chert flake	148°	10.1	no
11	chalcedony shatter flake	158°	26.1	no
12	rose chert flake	220°	24.9	no
13	white chert flake	228°	34.3	no
14	pink chert flake	246°	9.6	no
15	large secondary flake white chert	342°	22.0	no

Descriptive Section, Page 3

12. Report Title: ...along the Sheyenne River at West Fargo, Cass County, North Dakota.



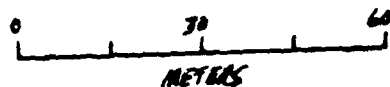
POWERS ELEVATION



CULTIVATED FIELD

SITE BOUNDARY

32CS43



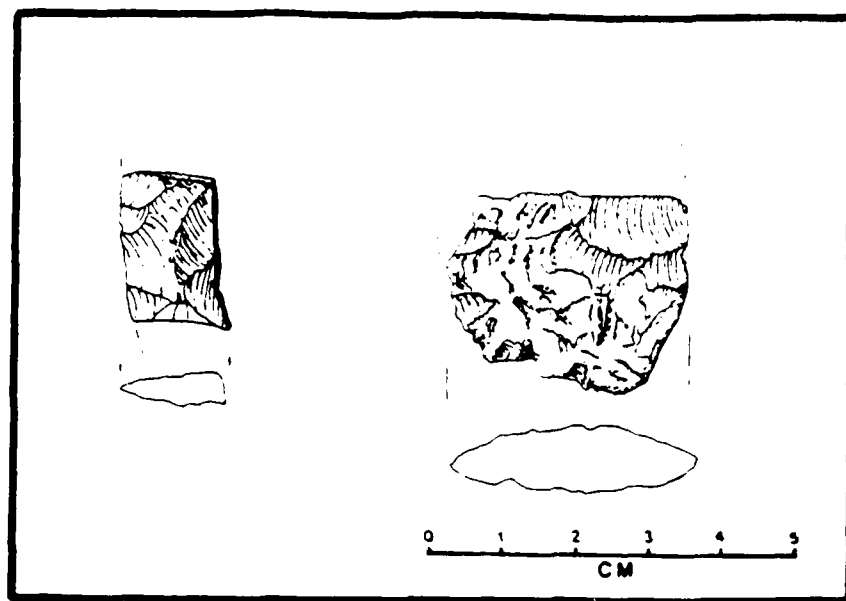
▲ TEMPORARY DATUM

• UNCOLLECTED LITHIC ARTIFACTS

X COLLECTED LITHIC ARTIFACTS

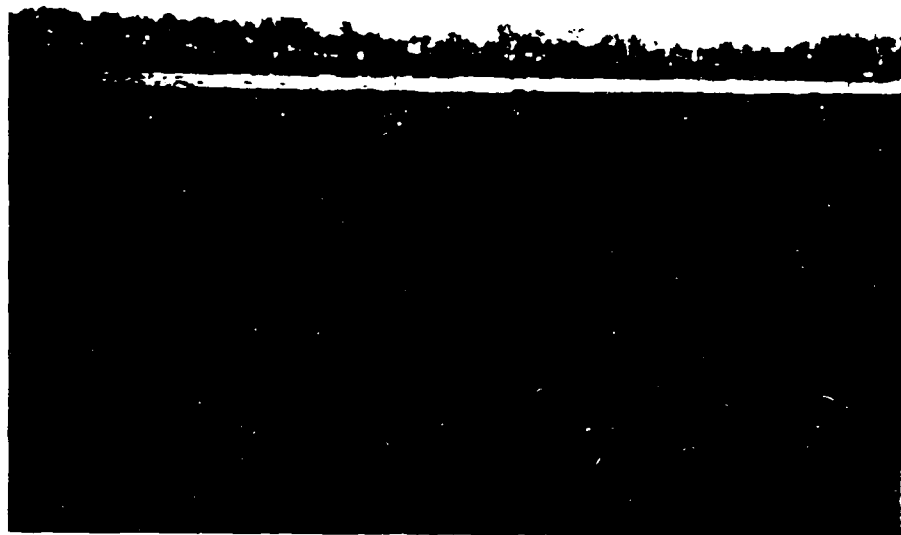
● POLES ALONG TRACKS

Fife
SIDINGBURLINGTON
NORTHERN RAILROADRED AND YELLOW FLAGS
ON RAILROAD AT SIDINGTHIRD POLE EAST
OF FLAGGED SIDING175°
123 METERS

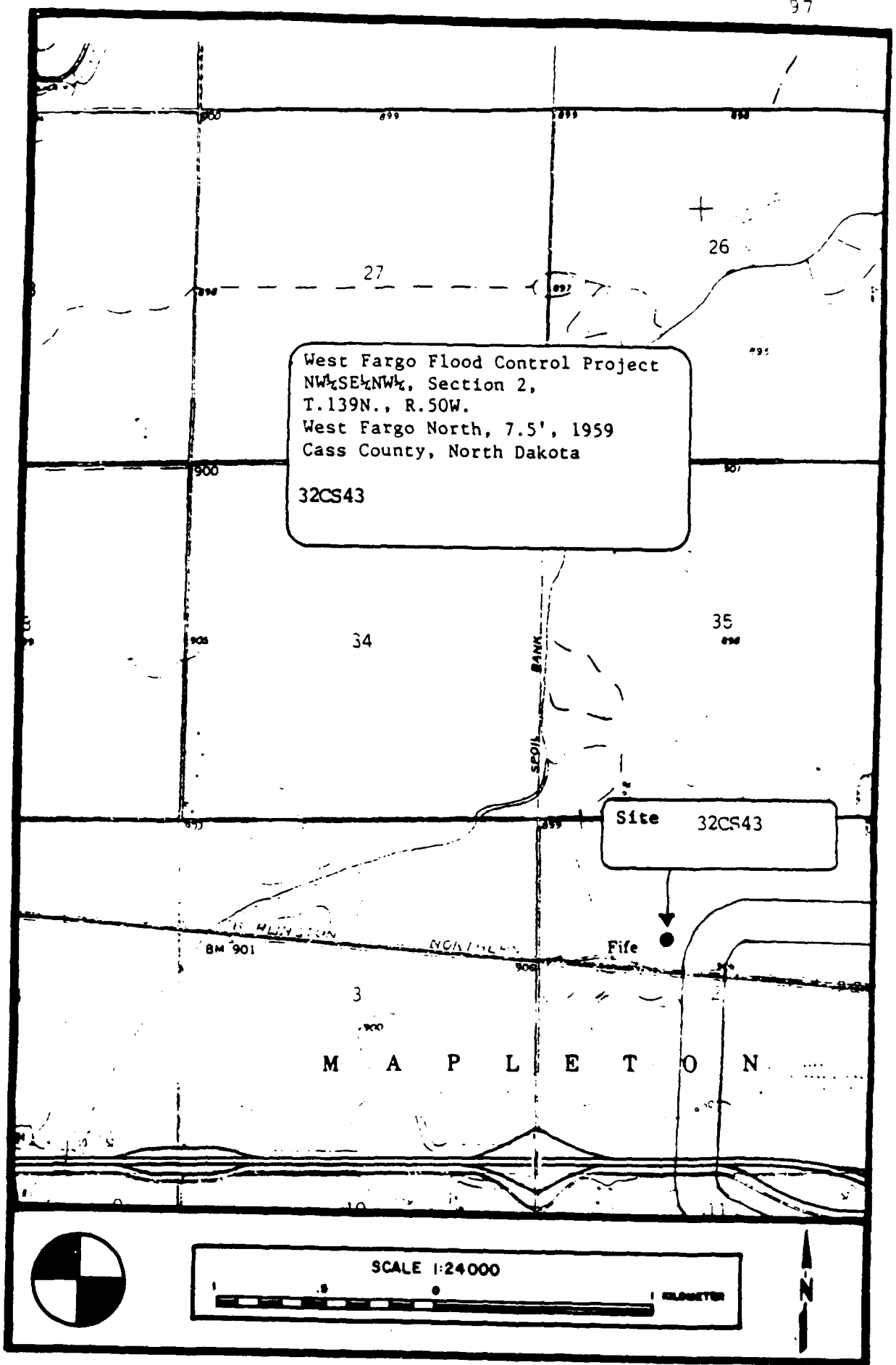


Lithic Artifacts from Site 32CS43

West Fargo Flood Control Project
NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 2,
T.139N., R.50W.
Cass County, North Dakota
32CS43



View toward the southwest.



NDCRS SITE FORM
 ARCHEOLOGICAL SITES

Page 1 98

SITS # 32 C.S. 44
 State County Site Number

Field Code P.E.8.7.C.S.2 Site Name _____
 Field Code _____ Site Name _____

Map Quad W.E.S.T. F.A.R.G.O. N.O.R.T.H.
 Map Quad _____

LTL	Twp	<u>133</u>	R	<u>050</u>	Sec	<u>11</u>	QQQ	<u>5</u>	QQ	<u>5</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

I. SITE I.D.

II. SITE DESCRIPTION

FEATURE TYPE	CULTURAL MATERIAL	
<input type="checkbox"/> Conical Timber Lodge	<input type="checkbox"/> Bone	<u>4800</u> m. Site Area
<input type="checkbox"/> CM Scatter	<input type="checkbox"/> Ceramics	<u>_____</u> Cultural Depth cm.
<input type="checkbox"/> Earthlodge Village	<input type="checkbox"/> Charcoal	<input type="checkbox"/> Depth Indicator
<input type="checkbox"/> Earthworks	<input type="checkbox"/> Copper	
<input type="checkbox"/> Fortification	<input type="checkbox"/> Faunal Remains	CULTURAL/TEMPORAL
<input type="checkbox"/> Grave	<input type="checkbox"/> Fire Cracked Rock	AFFILIATION
<input type="checkbox"/> Hearth	<input type="checkbox"/> Floral Remains	=====
<input type="checkbox"/> Jump	<input type="checkbox"/> Fossil	<input type="checkbox"/> Paleo
<input type="checkbox"/> Mound	<input type="checkbox"/> Hide, Hair, Fur	<input type="checkbox"/> Archaic
<input type="checkbox"/> Other Rock Features	<input type="checkbox"/> Human Remains	<input checked="" type="checkbox"/> Late Prehistoric
<input type="checkbox"/> Pit	<input type="checkbox"/> Projectile Point	<input type="checkbox"/> Historic
<input type="checkbox"/> Quarry/Mine	<input type="checkbox"/> Shell	<input type="checkbox"/> Period Unknown
<input type="checkbox"/> Rock Art	<input type="checkbox"/> Stone, Chipped	
<input type="checkbox"/> Rock Shelter	<input type="checkbox"/> Stone, Ground	
<input type="checkbox"/> Stone Circle	<input type="checkbox"/> Trade Good	
<input type="checkbox"/> Trail	<input type="checkbox"/> Wood	
<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Other	
<input type="checkbox"/> Isolated Find	<input type="checkbox"/> CM Density	<input checked="" type="checkbox"/> Basis for Dating

III. ENVIRONMENT

☒ Landform 1 15 Landform 2 10 Slope/Exposure 18 Ecosystem 18
☐ Landform 1 _____ Landform 2 _____ Slope/Exposure _____ Ecosystem _____
 Elevation _____ Drainage System _____ View, Degree _____ View, Distance _____
274 m. _____ S.H.E.Y.E.N.N.E. R.I.V.E.R 4 3
 Dist Perm Water 3931 m. Perm Water Type 3 Dist Seas Water 30 m. Seas Water Type 4

IV. C.R.M.

☒ Ownership _____ Ownership _____
051587 Fieldwork Date _____ Fieldwork Date _____
☒ Site Condition ☒ Collection ☒ Test/Probe ☒ Excavation
 Additional Information _____ Management Recommendation 4

SHSND USE

☐ Soil Association ☐ Ecozone ☐ Area Signf _____ MS Number _____
☐ Soil Association ☐ Ecozone ☐ Area Signf _____ MS Number _____
☐ CR Type ☐ Verified Site ☐ Non-Site ☐ E C F ☐ T F
☐ State Registry ☐ National Register

Coder _____ Date Coded _____

1. Access From West Fargo, head west on Interstate 94. Proceed to the last exit one mile west of the last West Fargo exit. Turn south and cross the interstate on the overpass. Turn east on the old paved highway just past the eastbound freeway entrance. Follow this road easterly about 0.5 miles to a billboard sign. (see continuation sheet)
2. Description of Site The site is situated on a terrace above the north bank of a small intermittent stream course which is a tributary to the Sheyenne River. Cultural materials are widely scattered in the cultivated field extending some 120 m east-west by 40 m north-south. The artifacts are particularly concentrated in any area with overall sparse density of materials. Associated with the lithic artifacts is a dense scatter of fractured, burnt and calcined bone, clam shell fragments, cracked rock and cobbles. These materials may or may not be directly related to the site occupation. This site is immediately north and across the stream from site temporary number PE-87-CS-1, which has been identified as a Late Woodland occupation.
The two sites may be associated with each other. A ceramic sherd recovered at this location is not particularly diagnostic, but coupled with the small side-notched point also found here PE-87-CS-2 may be classified as Late Woodland. The Late Woodland period can be tentatively dated to ca. A.D. 600-1800.
3. Description of Cultural Materials (Quantify and identify) One small side-notched projectile point white chert.
One thin biface tip or base fragment of white chert.
One thin biface/preform fragment of Knife River flint.
One cord marked, grit tempered pottery sherd.
Sixteen flakes and assorted lithic items.
(see continuation sheet for detailed list of materials at site)
20 # of items of cultural material observed 4 # Collected
4. Artifact Repository State Historical Society of North Dakota, Bismarck.
5. Description of Subsurface Testing No subsurface testing was conducted at the site.

6. Current Use of Site Cultivated fields.
7. Owner's Name/Address G.M. Libbrecht, Box 32A, West Fargo, ND.
8. Vegetation The field was covered by immature wheat crop 1.0 to 1.5 inches in height when surveyed.
9. Cover (% of visible ground) 85%.
10. Man-hours spent on site Three hours.
11. Project Title West Fargo Flood Control Project.
P.I. Mervin G. Floodman
12. Report Title Phase I Cultural Resources Investigation of a Proposed Flood Control Project along the (see continuation sheet) Author Mervin G. Floodman
13. Other Published References None.
14. Description of Collections Observed None.
15. Owner-Address of Collections Observed N/A.
16. Statement of Integrity The site area is currently under cultivation. The modern plowzone has disturbed the upper portions of the site. The extent of the cultural deposits beneath the plowzone has not been determined. The potential for intact or stratified cultural remains along the stream terrace is believed good.
17. Statement of Significance The significance and NRHP eligibility of the site is undetermined pending a subsurface evaluation of the nature and extent of the site's buried cultural deposits. This evaluation should precede any planned construction impacts to the site area.
18. Comments/References

32CS44
Continuation Sheet
page 5

Descriptive Section, Page 2

1. Access: The site lies in the cultivated field adjacent to a stream course southwest of the sign.

3. Description of Cultural Materials (Quantify and identify):

Artifact Description	Azimuth	Meters Distance	Collected
1 biface fragment white chert	108°	3.65	yes
2 tertiary flake white chert	176°	8.20	no
3 primary flake white chert	255°	15.60	no
4 tertiary flake white chert	262°	19.00	no
5 utilized secondary flake quartzite	266°	29.50	no
6 tertiary flake grey quartzite	272°	25.70	no
7 tertiary flake white chert	240°	51.00	no
8 utilized flake rose chert	250°	59.00	no
9 flake white chert	252°	49.00	no
10 flake white chert	252°	52.00	no
11 side-notched point white chert	347°	17.40	no
12 primary flake variegated chert	56°	50.80	no
13 tertiary flake tan quartzite	72°	19.00	no
14 white chert shatter	88°	21.10	no
15 biface/preform fragment Knife River flint	79°	33.80	yes
16 utilized flake grey chert	85°	42.00	no
17 shatter white chert	66°	41.20	no
18 secondary flake variegated chert	61°	49.50	no
19 pottery sherd cord marked	37°	44.00	yes
20 utilized secondary flake Knife River flint.	77°	54.00	no

Descriptive Section, Page 3

12. Report Title: ...Sheyenne River at West Fargo, Cass County, North Dakota.



POWERS ELEVATION

INTERSTATE 94

OLD PAVED HIGHWAY

SIGN

WIND BREAK

CULTIVATED
FIELD

SITE BOUNDARY

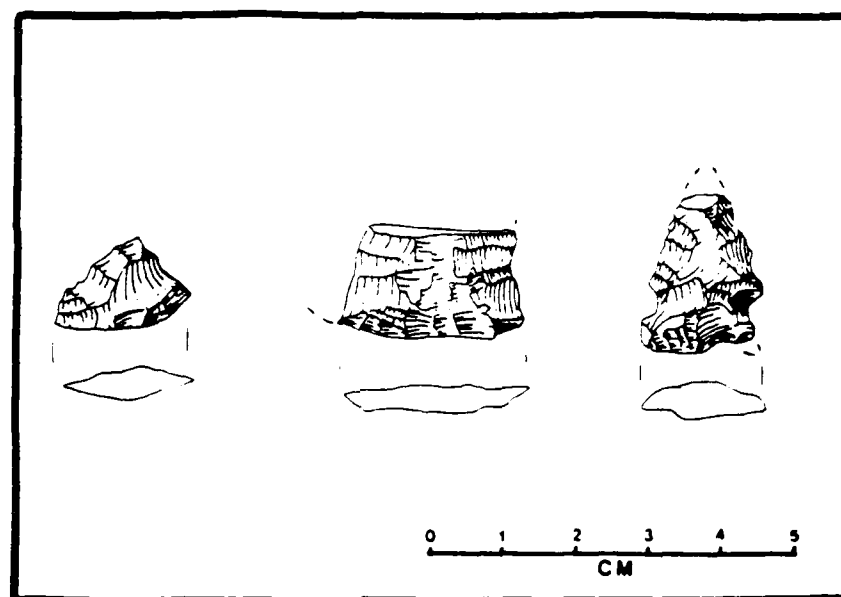
STREAM

INTERMITTENT

- UNCOLLECTED LITHIC ARTIFACT
- x COLLECTED LITHIC ARTIFACT
- + COLLECTED POTTERY SHEED
- △ TEMPORARY DATUM
- FIELD EDGE
- SIGN - PETERBILT OF FARGO, INC.

32CS44



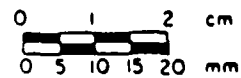


Lithic Artifacts from Site 32CS44

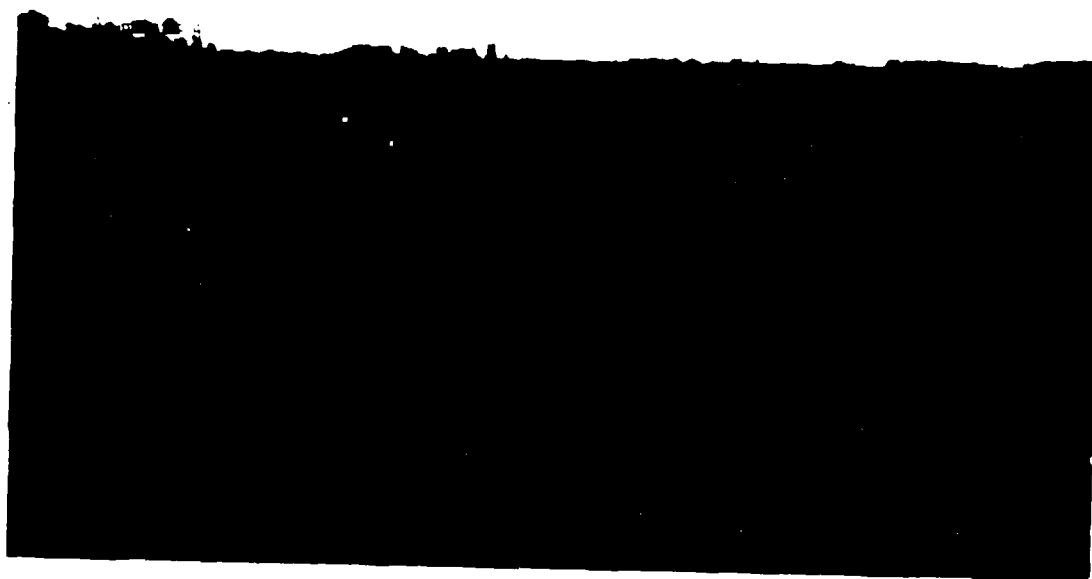
WEST FARGO FLOOD CONTROL PROJECT, NORTH DAKOTA



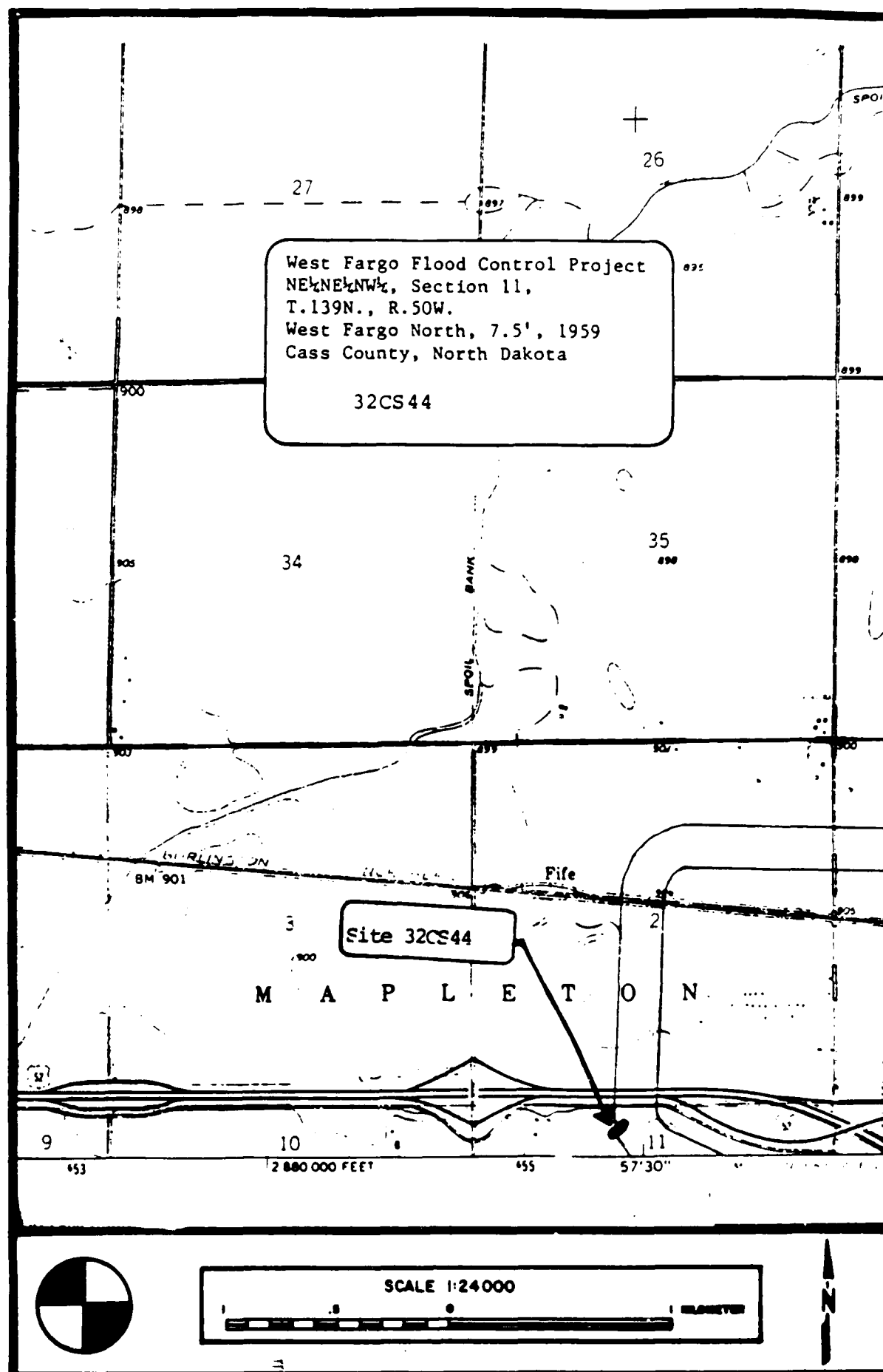
Ceramic Sherd from Site 32CS44



32CS44
West Fargo Flood Control Project
NE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 11,
T.139N., R.50W.,
Cass County, North Dakota



View towards the north-northeast



NUORS SITE FORM
ARCHAEOLOGICAL SITES

108

Page 1

I. SITE I.D.

SITS # 3.2 State County Site Number

Field Code I.E.2 Site Name _____

Field Code _____ Site Name _____

Map Quad WEST FARGO SOUTH

Map Quad _____

LTL	Twp	<u>139</u>	R	<u>50</u>	Sec	<u>11</u>	QQQ	<u>17</u>	QQ	<u>5</u>	Q	<u>8</u>
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____
LTL	Twp	_____	R	_____	Sec	_____	QQQ	_____	QQ	_____	Q	_____

1. N
2. E
3. C
4. W
5. NE
6. SE
7. SW
8. NW
9. C

II. SITE DESCRIPTION

FEATURE TYPE	CULTURAL MATERIAL	m. x m.
<input type="checkbox"/> Conical Timber Lodge	<input type="checkbox"/> Bone	_____ Site Area
<input type="checkbox"/> CM Scatter	<input type="checkbox"/> Ceramics	_____ Cultural Depth cm
<input type="checkbox"/> Earthlodge Village	<input type="checkbox"/> Charcoal	<u>0</u> Depth Indicator
<input type="checkbox"/> Earthworks	<input type="checkbox"/> Copper	
<input type="checkbox"/> Fortification	<input type="checkbox"/> Faunal Remains	CULTURAL/TEMPORAL
<input type="checkbox"/> Grave	<input type="checkbox"/> Fire Cracked Rock	AFFILIATION
<input type="checkbox"/> Hearth	<input type="checkbox"/> Floral Remains	=====
<input type="checkbox"/> Jump	<input type="checkbox"/> Fossil	<input type="checkbox"/> Paleo
<input type="checkbox"/> Mound	<input type="checkbox"/> Hide, Hair, Fur	<input type="checkbox"/> Archaic
<input type="checkbox"/> Other Rock Features	<input type="checkbox"/> Human Remains	<u>3</u> Late Prehistoric
<input type="checkbox"/> Pit	<input type="checkbox"/> Projectile Point	<input type="checkbox"/> Historic
<input type="checkbox"/> Quarry/Mine	<input type="checkbox"/> Shell	<input type="checkbox"/> Period Unknown
<input type="checkbox"/> Rock Art	<u>1</u> Stone, Chipped	
<input type="checkbox"/> Rock Shelter	<input type="checkbox"/> Stone, Ground	
<input type="checkbox"/> Stone Circle	<input type="checkbox"/> Trade Good	
<input type="checkbox"/> Trail	<input type="checkbox"/> Wood	
<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Other	
<u>1</u> Isolated Find	<u>3</u> CM Density	<u>8</u> Basis for Dating

III. ENVIRONMENT

1 Landform 1 8 Landform 2 0 Slope/Exposure 19 Ecosystem

☐ Landform 1 ☐ Landform 2 ☐ Slope/Exposure ☐ Ecosystem

Elevation _____ Drainage System _____ View, _____ View, _____

27.4 m. Shavienne River 0 Degree 0 Distance

Dist Perm Water 4000 m. Perm Water Type 3 Dist Seas Water 10 m. Seas Water Type 1

IV. C.R.M.

3 Ownership ☐ Ownership

5/11/18/7 Fieldwork Date ☐ Fieldwork Date

5 Site Condition 4 Collection 0 Test/Probe ☐ Excavation

Additional Information 1 Management Recommendation

V. USE

☐ Soil Association ☐ Ecozone ☐ Area Signf ☐ MS Number

☐ Soil Association ☐ Ecozone ☐ Area Signf ☐ MS Number

☐ CR Type ☐ Verified Site ☐ Non-Site ☐ E C F ☐ T F

☐ State Registry ☐ National Register

Order _____

Date Coded _____

ISOLATED ARTIFACT RECORD

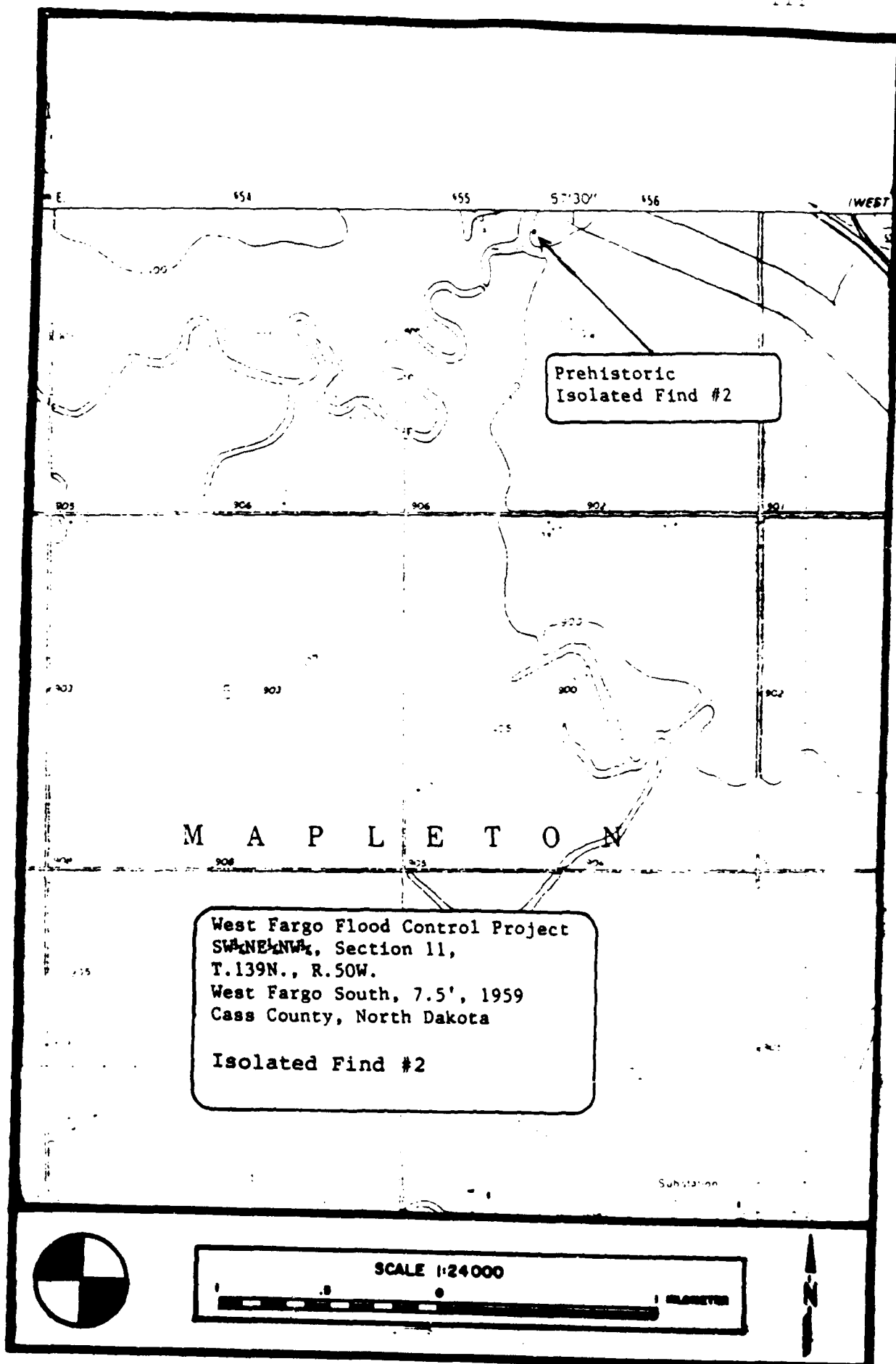
- 1) Field Number 18 #2 2) Curation Number _____
- 3) Legal Location: T 139 N.R. 50 W. _____ Sec. 11, 1 SE 1 SW 1 NE 1 NW 1
- 4) County Cass 5) USGS Map Reference West Fargo South, 7.5', 1959
- 6) Artifact Owner (Landowner): Federal Agency/District _____ G.M. Libbrecht
State Agency/District _____ Private/Name and Address Box 32A, West Fargo,
- 7) Collected? / / No /X / Yes Repository State Historical Society of North DakotaND
- 8) Name of Recorder Mervin G. Floodman Date 5/14/87
Company/Institution Powers Elevation, Inc.

- 9) Sketch or Photo: Scale _____
- 10) Artifact Description (Dimensions-materials-use/function-time period)
This isolate consists of a metate or grinding slab on a flat piece of diorite or shale. The artifact is broken in half. It measures 190 mm by 151 mm by 26 mm. The grinding surface is 96 mm wide with a ground hollow 9 mm in depth. It weighs about 1.25 kilograms.
- 11) Environmental Location (Topography-vegetation-soils-slope-hydrology)
The artifact was located in a fallow field just east of a small intermittent stream course and treeline. The slab is on a terrace above the stream. The field was open with 100% visibility. No other artifacts were located in the vicinity. However, the grinding slab is located in proximity to _____
being about 150 m southwest of it, on the same stream terrace. It may or may not be associated.
- 12) Attach USGS Map Showing Artifact Location



Isolate Find #2

0 1 2 3 4 5
C M



APPENDIX B:
Shovel Tests

APPENDIX B

SHOVEL TESTS

Shovel tests were excavated in three sections of the project area. These were labelled Test Areas A, B and C. The areas are summarized below.

TEST AREA A

Test Area A is located just south of the Jeff Jones farm in Section 31, T.140N., R.49W. The area tested encompasses a flat, open, grassy terrace immediately above the Sheyenne River, on the west bank. Three transects were placed over the terrace top spaced at 15 m intervals. A total of 17 shovel probes were excavated. Soils are Cashel silty clay.

<u>Probe #</u>	<u>Depth</u>	<u>Comments</u>
1.1	0-55 cm	Dark black to very dark grayish brown silty clay. There is really very little if any distinction in the soil profile. No cultural materials. Little lighter color with depth and dryer.
1.2	0-60 cm	Dark black to very dark grayish brown silty clay. There is really very little if any distinction in the soil profile. No cultural materials. Little lighter color with depth and dryer.
1.3	0-52 cm	
1.4	0-54 cm	
1.5	0-51 cm	
1.6	0-55 cm	
1.7	0-57 cm	
1.8	0-52 cm	
1.9	0-61 cm	
1.10	0-56 cm	
2.5	0-59 cm	
2.4	0-52 cm	
2.3	0-51 cm	
2.2	0-57 cm	

TEST AREA B

TEST AREA C

Test Area C is located along the diversion channel near Horace in Section 19, T.138N., R.49W. The tested area consists of a single transect of tests placed east-west across the forested area above the Sheyenne River bank. The tests were dug at 15 m intervals. A total of six shovel tests were excavated. None produced cultural materials. Soils are Fairdale sitly clay loam.

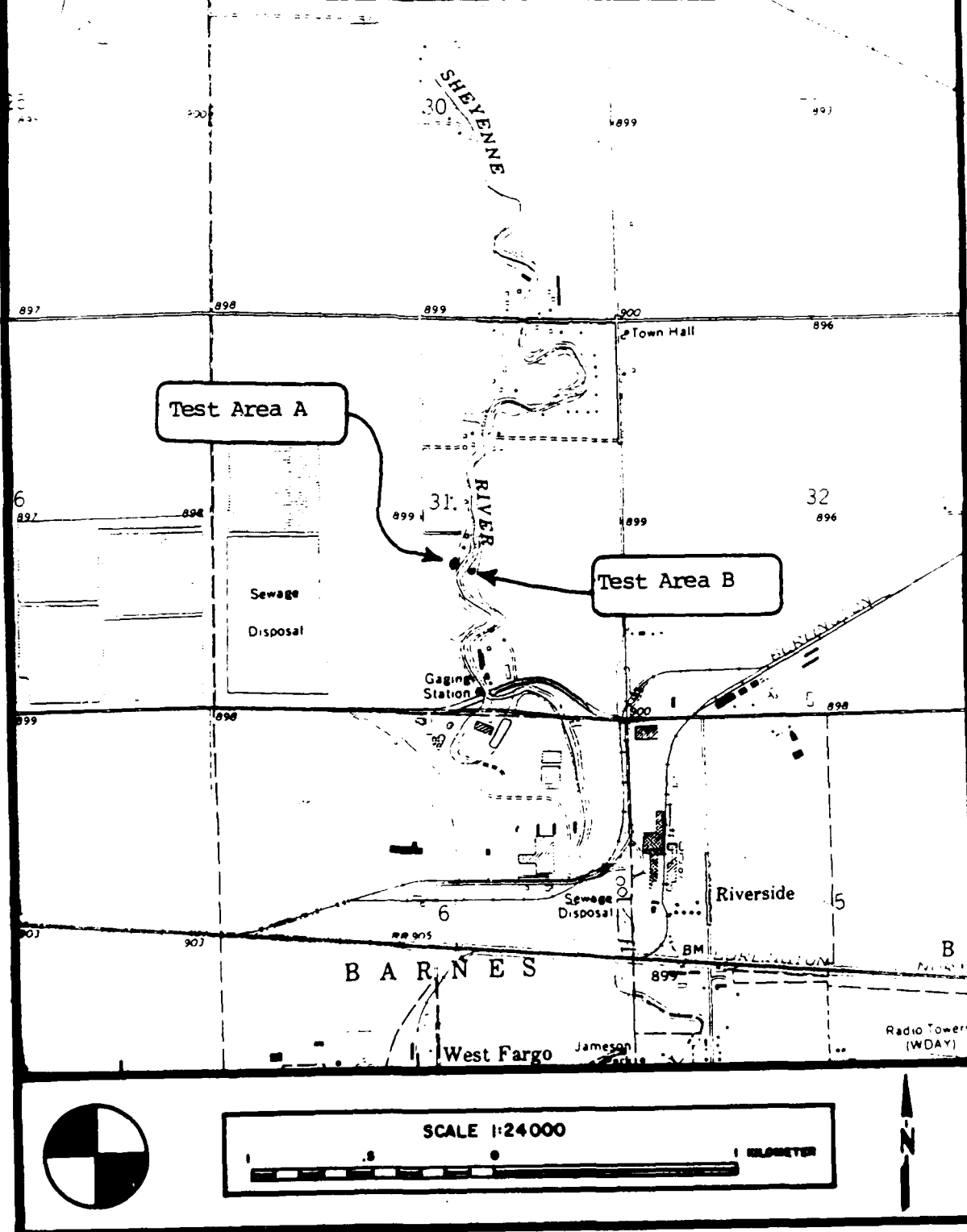
<u>Probe #</u>	<u>Depth</u>	<u>Comments</u>
1	0-18 cm	Black silty clay loam.
	18-32 cm	Black and reddish brown mottled silty clay. Organic rotten wood.
	32-48 cm	Light brown-tan sandy silty loam. Much more sand content.
	48-55 cm	Increased sand content. Otherwise much the same material.
2	0-19 cm	Black silty clay loam.
	19-38 cm	Light brown-tan sandy silty loam.
	38-45 cm	Light-tan very sandy stratified silt with some clay.

- 3 0-14 cm Black silty clay loam.
 14-30 cm Dark to light brown mottled silty clay
 loam.
 30-49 cm Light brown-tan sandy silty loam.
- 4 0-15 cm Black silty clay loam.
 15-33 cm Dark and light brown mottled silty
 clay loam.
 33-48 cm Light brown tan sandy silty loam.
 48-78 cm Used soil auger. Same soil with some
 increasing clay content.
- 5 0-20 cm Black silty clay loam.
 21-33 cm Dark and light brown mottled silty
 clay loam.
 34-48 cm Light brown-tan sandy silty loam.
- 6 0-33 cm Dark silty clay loam.
 33-40 cm Dark-brown and light-brown mottled
 clay loam.
 40-50 cm Light brown tan sandy silty loam.

No cultural materials were recovered. The potential for significant buried deposits not encountered does not appear to be high. Soil is not deep.

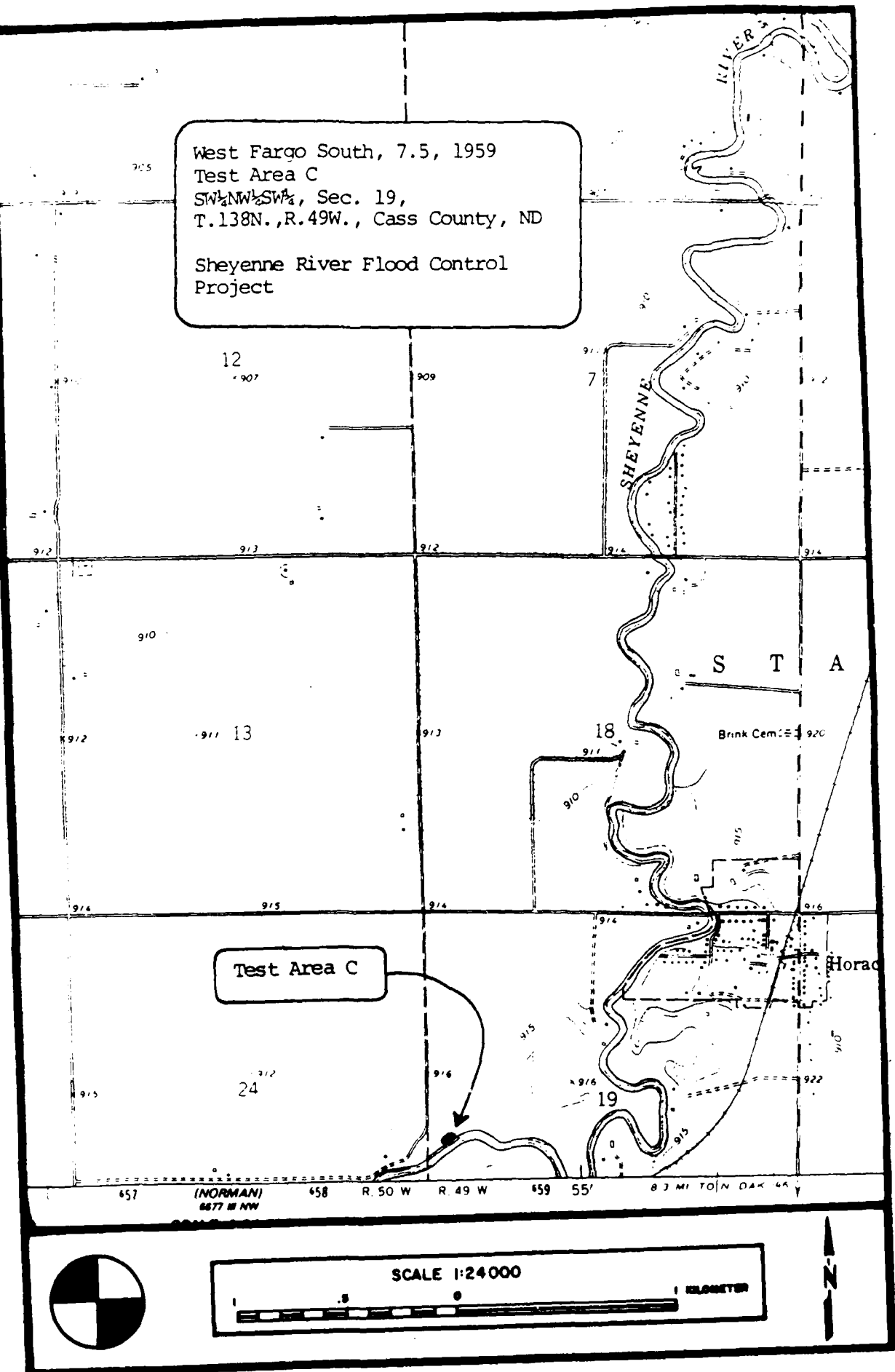
West Fargo North, 7.5, 1959
 Test Area A: W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 31.
 Test Area B: E $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 31.
 T.140N., R.49W., Cass County, ND

Sheyenne River Flood Control
 Project



West Fargo South, 7.5, 1959
 Test Area C
 SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 19,
 T.138N., R.49W., Cass County, ND

Sheyenne River Flood Control
 Project



APPENDIX C:
Scope-of-Work

<input type="checkbox"/> CHECKED BOX APPLIES <input checked="" type="checkbox"/> ORDER FOR SUPPLIES OR SERVICES MARILYN 612-725-7618		<input type="checkbox"/> REQUEST FOR QUOTATIONS NO RETURN COPIES OF THIS QUOTE BY THIS IS NOT AN ORDER See DD Form 1155		PAGE FOUR	
1 CONTRACT/PURCH ORDER NO DAOWW -86-M-1052		2 DELIVERY ORDER NO		3 DATE OF ORDER 86 MAY 27	
4 REQUEST ON PURCH REQUEST NO NCSFD-ER-R-314		5 ISSUED BY DEPARTMENT OF THE ARMY ST. PAUL DISTRICT, CORPS OF ENGINEERS 1135 U.S.P.O. & CUSTOM HOUSE ST. PAUL, MINNESOTA 55101		6 ADMINISTERED BY (if different than 5) This transaction is for the interest and benefit of the United States and is exempt from the Minnesota Sales and Use Tax (Minn. Stat. 297A, Laws, Extra Session 1967, Ch. 127). District Engineer U.S. Army Engineer District, St. Paul	
7 CONTRACTOR/QUOTER PAUL FRIEDMAN POWERS ELEVATION/ARCHAEOLOGY DIVISION PO BOX 2612 DENVER, COLORADO 80201-2612		8 FACILITY CODE		9 DELIVER TO FOB POINT BY 86 SEP 2	
10 DISCOUNT TERMS NET 30		11 CHECK IF BUSINESS IS <input type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input type="checkbox"/> WOMEN OWNED		12 MAIL INVOICES TO AS SHOWN IN BLOCK 15	
13 SHIP TO CORPS OF ENGINEERS 1135 USPO & CUSTOM HOUSE ST. PAUL, MN 55101-1479		14 PAYMENT WILL BE MADE BY SEND INVOICES IN DUPLICATE TO: ST. PAUL DISTRICT, C OF E 1135 U.S.P.O. & CUSTOM HOUSE ST. PAUL, MN 55101 ATTN: NCSDFE		15 MARK ALL PACKAGES AND PAPERS WITH CONTRACT OR ORDER NUMBER	
16 DELIVERY <input type="checkbox"/> <input checked="" type="checkbox"/> PURCHASE This delivery order is subject to instructions contained on this side of form only and is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract. Payment Will Be Made By Invoice Only; Not By Statement. Reference your _____ furnish the following on terms specified herein, including, for U.S. purchases General Provisions of Purchase Order on DD Form 1155 (EXCEPT CLAUSE NO 12 APPLIES ONLY IF THIS BOX <input type="checkbox"/> IS CHECKED, AND NO 14 IF THIS BOX <input type="checkbox"/> IS CHECKED) special provisions _____ and delivery as indicated. This purchase is negotiated under authority of _____ 10 USC 2304(a)(3) or as specified in the schedule if within the U.S., its possessions or Puerto Rico, if otherwise under 2304(a)(6) <input type="checkbox"/> If checked, Additional General Provisions apply. Supplier shall sign "Acceptance" on DD Form 1155 and return _____ copies					
17 ACCOUNTING AND APPROPRIATION DATA/LOCAL USE AM0230554000000 96X3121 G1 R07860008					
18 ITEM NO	19 SCHEDULE OF SUPPLIES SERVICES	20 QUANTITY ORDERED/ACCEPTED	21 UNIT	22 UNIT PRICE	23 AMOUNT
1.	CULTURAL RESOURCES SURVEY OF PROPOSED SNEYENNE RIVER FLOOD CONTROL PROJECT AREA. IN ACCORDANCE WITH PREVIOUSLY FURNISHED SCOPE OF WORK.	1	JOB		\$ 11,200.00
24 UNITED STATES OF AMERICA <i>Marilyn Aird</i> BY MARILYN AIRD		25 TOTAL 86 MAY 27 CONTRACTING OFFICER		26 DIFFER ENCES \$ 11,200.00	
27 QUANTITY IN COLUMN 20 HAS BEEN <input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED AND CONFIRMS TO THE CONTRACT EXCEPT AS NOTED DATE _____ SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE _____ 35 I certify this account is correct and proper for payment. DATE _____ SIGNATURE AND TITLE OF CONTRACTING OFFICER _____		28 DO VOUCHER NO <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL 31 PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		29 BILL OF LADING NO 30 INITIALS 32 AMOUNT VERIFIED CORRECT FOR 34 CHECK NUMBER 36 S/W VOUCHER NO	
37 RECEIVED AT	38 RECEIVED BY	39 DATE RECEIVED	40 TOTAL CONTAINERS	41 S/W ACCOUNT NUMBER	42 S/W VOUCHER NO

SCOPE OF WORK
PHASE I CULTURAL RESOURCES INVESTIGATION
OF A PROPOSED FLOOD CONTROL PROJECT AREA ALONG THE
SHEYENNE RIVER IN CASS COUNTY, NORTH DAKOTA

1.00 INTRODUCTION

1.01 The Contractor will undertake a Phase I cultural resources investigation of the project area for the proposed flood control project along the Sheyenne River in Cass County, North Dakota.

1.02 This investigation partially fulfills the obligations of the Corps of Engineers (Corps) regarding cultural resources, as set forth in the National Historic Preservation Act of 1966 (Public Law [PL] 89-665), as amended; the National Environmental Policy Act of 1969 (PL 91-190); Executive Order (EO) 11593 for the "Protection and Enhancement of the Cultural Environment" (Federal Register, May 13, 1971); the Archeological and Historical Preservation Act of 1974 (PL 93-291); the Advisory Council on Historic Preservation "Regulations for the Protection of Historic and Cultural Properties" (36 CFR, Part 800); and the applicable Corps regulations (ER 1105-2-50).

1.03 The laws listed above establish the importance of Federal leadership, through the various responsible agencies, in locating and preserving cultural resources within project areas. Specific steps to comply with these laws, particularly as directed in PL 93-291 and EO 11593, are being taken by the Corps "... to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archeological significance." A part of that responsibility is to locate, inventory, and nominate to the Secretary of the Interior all such sites in the project area that appear to qualify for listing on the National Register of Historic Places.

1.04 EO 11593 and the 1980 amendments to the National Historic Preservation Act further direct Federal agencies "... to assure that any federally owned property that might qualify for nomination is not inadvertently transferred, sold, demolished or substantially altered." In addition, the Corps is directed to administer its policies, plans, and programs so that federally and non-federally owned sites, structures, and objects of historical, architectural, or archeological significance are preserved and maintained for the inspiration and benefit of the people.

1.05 This cultural resources investigation will serve several functions. The report will be a planning tool to aid the Corps in meeting its obligations to preserve and protect our cultural heritage. It will be a comprehensive, scholarly document that not only fulfills federally mandated legal requirements but also serves as a scientific reference for future professional studies. It will identify resources that may require additional investigations and that may have potential for public-use development. Thus, the report must be analytical, not just descriptive.

2.00 PROJECT DESCRIPTION

2.01 The Sheyenne River is prone to flooding in the West Fargo/Riverside area of Cass County, North Dakota. Consequently, a flood control project has been proposed that would permit flood waters to be diverted through a separate channel during times of high flow along the Sheyenne River. The project would include construction of two sections of levee, a flood diversion channel and related closure structures, and interior drainage facilities.

2.02 The two major project areas requiring survey consist of (1) the proposed alignments for a diversion channel, levee, and drainage ditch system around West Fargo, and (2) the alignment for a diversion channel to the south, near Horace. These areas are shown at a small scale in figures 1-5. The West Fargo improvements are also shown in greater detail in plates 1 and 2. Between these two major sections, the diversion channel will follow an existing drainage ditch and will not require survey.

2.03 The northern portion of the project area includes new levee construction north and south of West Fargo, a diversion channel encircling the town on the west, and associated drainage and closure structures (figures 1, 3, and 4; plates 1 and 2). The total land area is approximately 1,079 acres, most of which is cultivated, and some of which has been disturbed by previous construction.

2.04 The southern portion of the project area (figures 2 and 5), the diversion channel near Horace, follows an alignment 300 feet wide and approximately 3.5 miles long, and totaling 127 acres. The alignment extends north along the eastern edge of Highway 17 from the Sheyenne River west of Horace to Drain No. 21. The land is cultivated, except for a small wooded area near the river.

2.05 The Contractor will conduct a Phase I cultural resources survey of the flood control project area as described. This survey will include any surface inspection and subsurface testing necessary to locate archeological sites. Particular attention will be paid to the identification of any deeply buried cultural deposits present near the Sheyenne River. The survey will also include inspection of any farmsteads or other structures in the project area to identify any that are potentially significant.

3.00 DEFINITIONS

3.01 Cultural Resources include any building, site, district, structure, object, data, or other material relating to the history, architecture, archeology, or culture of an area.

3.02 A Phase I Cultural Resources Survey is an intensive, on-the-ground study of an area sufficient to determine the number and extent of the resources present and their relationships to project features. It will provide (1) data adequate to assess the general nature of the sites present; (2) recommendations for additional testing of those resources that may provide important cultural and scientific information; and (3) detailed time and cost estimates for Phase II testing.

3.03 Phase II Testing is the intensive testing of a resource that may provide important cultural or scientific information. This testing will result in (1) information adequate to determine whether the resource is eligible for inclusion on the National Register of Historic Places; (2) a Phase III mitigation plan for any eligible resources that will undergo a direct or indirect impact; and (3) detailed time and cost estimates for the mitigation.

3.04 Phase III Mitigation is the mitigation of the direct or indirect impacts of construction upon eligible sites through the systematic removal of data. It typically includes the excavation of either complete cultural deposits or a systematic sample of them and the thorough analysis and interpretation of the data recovered. The excavation, analysis, and interpretation methods must be adequate to address the important research questions based on which the resource was determined eligible. In addition, because the mitigation process destroys the resource, data should be recovered that may be needed to address future research questions.

4.00 SURVEY REQUIREMENTS

4.01 The Contractor will conduct a Phase I cultural resources investigation of the Sheyenne River flood control project area, in accordance with Sections 2.05 and 3.02 above.

4.02 The Contractor's work will be subject to the supervision, review, and approval of the Contracting Officer's representative.

4.03 The Contractor will employ a systematic, interdisciplinary approach in conducting the study, using techniques and methods that represent the current state of knowledge for the appropriate disciplines. The Contractor will provide specialized knowledge and skills as needed, including expertise in archeology and other social and natural sciences. Expertise in geomorphology will be required to evaluate the potential for deeply buried floodplain sites, and historic architectural expertise will be necessary for examining any potentially significant farmsteads or other standing structures.

4.04 The Contractor will provide all materials and equipment necessary to perform the required services expeditiously.

4.05 The Contractor's survey will be an on-the-ground examination sufficient to determine the number and extent of any cultural resources present, including standing structures as well as prehistoric and historic archeological sites.

4.06 The Contractor's survey will include surface inspection in areas where surface visibility is adequate to reveal any cultural materials that are present and subsurface testing in all areas where surface visibility is inadequate, or where deeply buried cultural deposits may be present. Subsurface investigation will include shovel testing, coring, soil borings, cut bank profiling, or other appropriate methods. If the field methods used vary from those that are required, they must be described and justified in the Contractor's report.

4.07 The survey interval required for subsurface testing is 15 meters (50 feet). However, this interval may vary depending upon field conditions, site density, or size. If a larger interval is used, this decision must be justified in the Contractor's report.

4.08 The Contractor will screen all subsurface tests through 1/4-inch mesh hardware cloth.

4.09 The Contractor will recommend any Phase II testing measures that are warranted, including time and cost estimates.

4.10 If it becomes necessary in the performance of the work and services, the Contractor will, at no cost to the Government, secure the rights of ingress and egress on properties not owned or controlled by the Government. The Contractor will secure the consent of the owner, or the owner's representative or agent, in writing prior to effecting entry on such property. If requested, a letter of introduction signed by the District Engineer can be provided to explain the project purposes and request the cooperation of landowners. Where a landowner denies permission for survey, the Contractor must immediately notify the Contracting Officer's representative and must describe the extent of the property to be excluded from the survey.

4.11 The Contractor will return all surveyed areas as closely as practical to presurvey conditions.

4.12 The Contractor must keep standard records that include field notes and maps, site survey forms, subsurface testing forms, and photographs.

4.13 State site forms will be prepared for all sites discovered during the survey, and records on previously reported sites will be updated if new information is obtained. Data should be included on the present condition of each site and on the contents and locations of any collections from it. The Contractor will also submit all site forms and updates to the appropriate State agency.

4.14 Cultural materials and associated records from the study should be curated at an institution that can ensure their preservation and make them available for research and public view. Curation should be within the State and as close as possible to the project area. The Contractor will be responsible for making curatorial arrangements, coordinating them with the appropriate officials of North Dakota, and obtaining approval from the Contracting Officer's representative.

5.00 GENERAL REPORT REQUIREMENTS

5.01 The Contractor will submit the following documents, described in this section and Section 6.00: a field report, field notes, a draft contract report, and a final contract report.

5.02 The Contractor's field report will be a brief summary of the nature, extent, and results of the field work conducted. It may be in the form of a letter to the Contracting Officer's representative.

5.03 The Contractor's field notes will include legible copies of important notes and records kept during the investigation. Especially important are the daily field journal of the Principal Investigator or field director, field site survey forms, and subsurface testing forms. One copy of these notes should be submitted to the Contracting Officer's representative with the draft contract report but should not be bound into the report.

5.04 The draft contract report will detail the approach, methods, and results of the investigation, and make recommendations for further work. It will be submitted to the Contracting Officer's representative, who will review it and forward it to other appropriate agencies for review. Comments will be returned to the Contractor, who will make the necessary revisions and submit the final contract report.

5.05 The Contractor's draft and final reports will include the following sections, as appropriate to the study. The length of each section depends on the level of detail required of the study and the amount of information available. The reports should be as concise as possible, yet provide all the information needed for evaluating and managing the project and for future reference.

a. Title page: The title page will provide the following information: the type of study; the types of cultural resources assessed (archeological, historical, and architectural); the project name and location (county and State); the date of the report; the Contractor's name; the contract number; the name of the author(s) and/or Principal Investigator; the signature of the Principal Investigator; and the agency for which the report is being prepared.

b. Management summary: This section will provide a concise summary of the study, containing all the information needed for management of the project. This information will include the reason the work was undertaken, who the sponsor was, a brief summary of the scope of work and budget, a summary of the field work and lab analysis, the limitations of the study, the results, the significance of the results, recommendations for further work, and the repository for records and artifacts.

c. Table of contents

d. List of figures

e. List of plates

f. Introduction: This section will identify the sponsors (Corps of Engineers) and their reason for the study and present an overview of the study with each site located on USGS quad maps. It will also define the location and boundaries of the study area (using regional and area-specific maps); define the study area within its regional cultural and environmental context; reference the scope of work; identify the institution that did the work and the number of people and person-days/hours involved; give the dates when the various phases of the work were completed; identify the repository of records and artifacts; and provide a brief outline of the report and an overview of its major goals.

g. Previous archeological and historical studies: This section will briefly summarize and evaluate previous archeological and historical research in the study area including the researchers, dates, extent, adequacy, and results of past work and any cultural/behavioral inferences derived from it.

h. Environmental background: This section will briefly describe the current and prehistoric environment of the study area, including its geology, vegetation, fauna, climate, topography, physiography, and soils. The relationship of the environmental setting to the area's prehistory and history should be stressed. The level of detail in this section will be commensurate with that of the other report sections.

i. Theoretical and methodological overview: This section will state the goals of the sponsor and the researcher, the theoretical and methodological orientation of the study, and the research strategies that were applied to achieve the goals.

j. Field methods: This section will describe all field methods, techniques, and strategies and the reasons for using them. It will also describe field conditions, relevant topographic/physiographic features, vegetation conditions, soil types, stratigraphy, general survey results, and the reasons for eliminating any uninvestigated areas.

k. Laboratory and analysis methods: This section will explain the laboratory methods employed and the reasons for selecting them. It will reference accession or catalog numbers of any collections, photographs, or field notes obtained during the study and state where these materials are permanently housed. It will also describe and justify the specific analytical methods used, including any quantitative analysis of the data, and discuss limitations or problems with the analysis.

l. Results: This section will describe all cultural resources found during the study. It will minimally include each site's description (including size, depth, and artifact density); its location (USGS quad, legal description, elevation, and address if appropriate); the amounts and types of remains recovered; its environmental setting; its current condition; the direct and indirect impacts of the project upon it; and any additional interpretations (e.g., site type, cultural components, and human behavioral information).

m. Evaluation and conclusions: This section will formulate conclusions about the location, size, condition, and distribution of the resources found; their relationships to other sites in the area; and their possible importance in terms of local and regional prehistory, protohistory, and history. It will also relate the results of the study to the stated goals; identify any changes in the goals; assess the reliability of the analysis; and discuss the potential of and goals for future research.

n. Recommendations: This section will recommend any further work deemed necessary. It will summarize Phase II evaluation measures that would be needed to determine whether specific resources are eligible for the National Register of Historic Places, as well as a time and cost estimate for this

work. It will also describe any areas that were inaccessible, and recommend future treatment of them. If the Contractor concludes that no further work is needed at any site, the evidence and reasoning supporting this recommendation will be presented.

o. References: This section will provide bibliographic references (in American Antiquity format) for every publication cited in the report. References not cited in the report may be listed in a separate "Additional References" section.

p. Appendix: This section will include the Scope of Work, resumes of project personnel, copies of all correspondence relating to the study, and any other pertinent information referenced in the text. It will also include State site forms for all sites identified during the survey, including find spots and previously recorded sites.

q. Figures: The location of all sites and other features discussed in the text will be shown on a legibly photocopied USGS map bound into the report. In addition, the locations of all subsurface tests will be indicated on maps of appropriate scale and detail and keyed to the subsurface testing forms included with the field notes. Other recommended figures are regional and project maps, photographs of the project area, and line drawings or photographs of diagnostic artifacts, structures, and unit or feature profiles.

r. Tables: The report should include tables of cultural materials by site and provenience (for example, excavation unit and level). Information that may require more detailed tabulation includes lithic tool types and raw materials, ceramic attributes, and floral and faunal remains.

5.06 A cover letter submitted with the final contract report will include the project budget.

5.07 The Contractor will submit to the Contracting Officer's representative the negatives for all photographs that appear in the final report.

6.00 REPORT FORMATS

6.01 There are no specific format requirements for the field report. A letter report is usually sufficient.

6.02 There are no format requirements for the field notes; however, they must be legible. If the original handwritten notes are illegible, they should be typed.

6.03 Formats for both the draft and final contract reports are as follows:

a. The Contractor will present information in whatever textual, tabular, or graphic forms are most effective for communicating it.

b. The draft and final reports will be divided into easily discernible chapters, with appropriate page separations and headings.

c. The report text will be typed, single-spaced (the draft report should be space-and-one-half or double-spaced), on good quality bond paper, 8.5 inches by 11.0 inches, with 1.5-inch binding and bottom margins and 1-inch top and outer margins, and may be printed on both sides of the paper. All pages will be numbered consecutively, including plates, figures, tables, and appendixes.

d. All illustrations must be clear, legible, self-explanatory, and of sufficiently high quality to be reproduced easily by standard xerographic equipment, and will have margins as defined above. All maps must be labeled with a caption/description, a north arrow, a scale bar, township and range, map size and dates, and map source (e.g., the USGS quad name or published source). All photographs or drawings should be clear, distinct prints or copies with captions and a bar scale.

7.00 MATERIALS PROVIDED

7.01 The Contracting Officer's representative will furnish the Contractor with access to any publications, records, maps, or photographs that are on file at the St. Paul District headquarters.

8.00 SUBMITTALS

8.01 The field work completion date for this project will be no later than July 15, 1986. The Contractor will contact the Contracting Officer's representative at least 7 days before the field work begins to discuss the work schedule and plans.

8.02 The Contractor will submit reports according to the following schedules:

a. Field report: A brief letter report summarizing the field work and its results will be submitted to the Corps of Engineers within 15 days after the field work is completed.

b. Draft contract report: Seven copies of the draft contract report will be submitted no later than 45 days after completion of the field work. The draft contract report will be reviewed by the Corps of Engineers, the State Historic Preservation Officer, the State Archeologist, and the National Park Service. The draft contract report will be submitted according to the report and contract specifications outlined in this scope of work.

c. Project field notes: One legible copy of all the project field notes will be submitted with the draft contract report.

d. Final contract report: The original and 15 copies of the final report will be submitted 60 days after the Contractor receives the Corps of Engineers comments on the draft report. The final report will incorporate all the comments made on the draft report.

9.00 CONDITIONS

9.01 Failure of the Contractor to fulfill the requirements of this Scope of Work will result in rejection of the Contractor's report and/or termination of the contract.

9.02 Neither the Contractor nor his representative shall release any sketch, photograph, report, or other materials of any nature obtained or prepared under the contract without specific written approval of the Contracting Officer's representative prior to the acceptance of the final report by the Government. Dissemination of survey results through papers at professional meetings and publication in professional journals is encouraged. However, professional discretion should be used in releasing information on site locations where publication could result in damage to cultural resources.

9.03 All materials, documents, collections, notes, forms, maps, etc., that have been produced or acquired in any manner for use in the completion of this contract shall be made available to the Contracting Officer's representative upon request.

9.04 Principal investigators will be responsible for the validity of material presented in their reports. In the event of controversy or court challenge, the principal investigator(s) will be placed under separate contract to testify on behalf of the Government in support of the findings presented in their reports.

9.05 The Contractor will be responsible for adhering to all State laws and procedures regarding the treatment and disposition of human skeletal remains. Any human remains recovered will be treated with respect and will not be placed on public display.

10.00 METHOD OF PAYMENT

10.01 The Contractor will make monthly requests for partial payment on ENG Form 93 under this fixed price contract. A 10-percent retained percentage will be withheld from each partial payment. Final payment, including the previously retained percentage, will be made to the Contractor upon approval of the final report by the Contracting Officer's representative.



US Army Corps
of Engineers
St. Paul District

FLOOD CONTROL SHEYENNE RIVER, NORTH DAKOTA WEST FARGO / RIVERSIDE

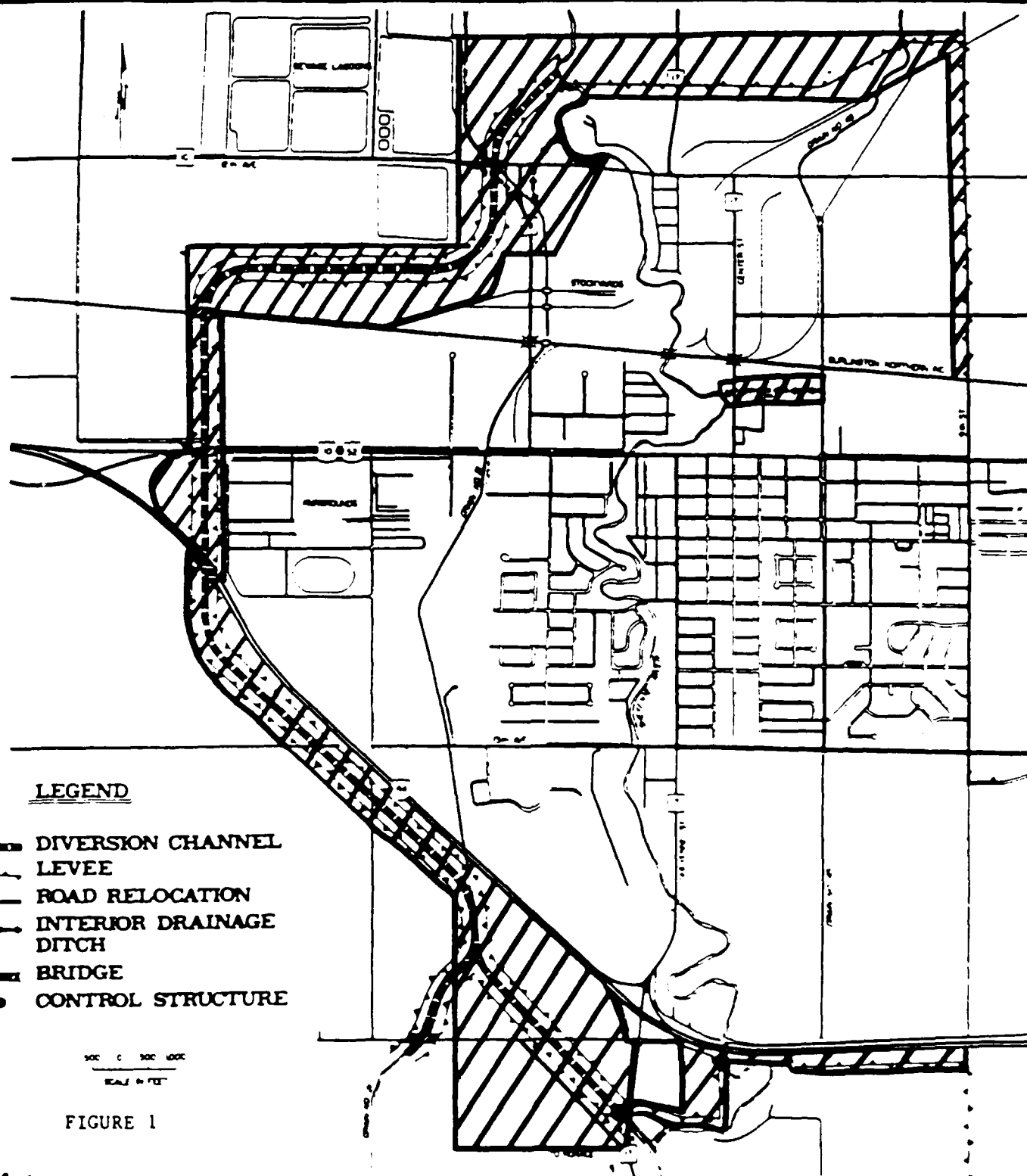
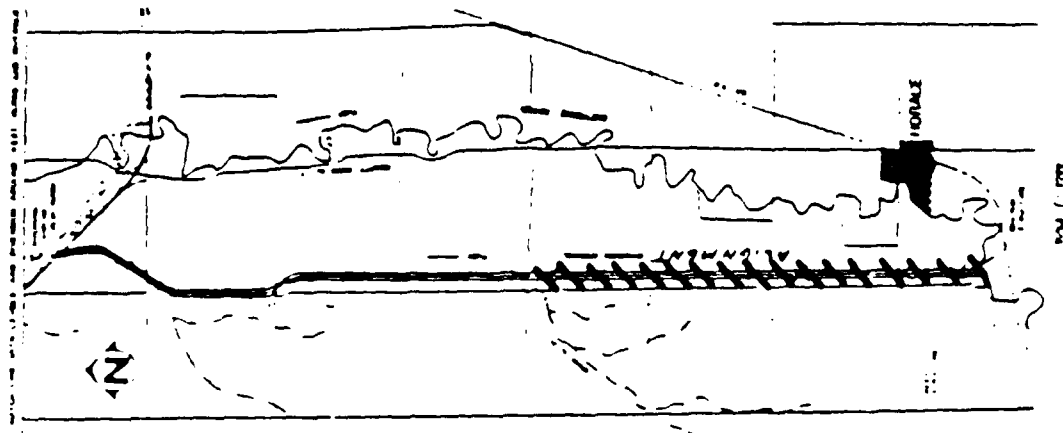


FIGURE 1

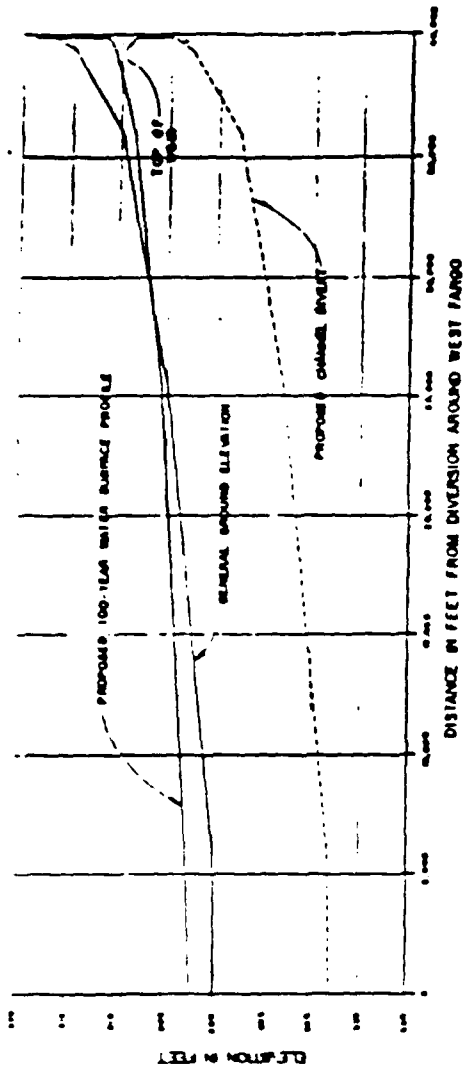


SURVEY AREA

PLAN VIEW OF DIVERSION OF THE SIEYENNE RIVER
(THORACE TO WEST FARGO)



PROFILE OF SIEYENNE RIVER DIVERSION THORACE TO WEST FARGO



TYPICAL SECTION OF SIEYENNE RIVER
DIVERSION THORACE TO WEST FARGO



FIGURE 2

/// SURVEY AREA

GENERAL INVESTIGATION DIVISION
SIEYENNE RIVER, NORTH DAKOTA
DIVERSION OF THE SIEYENNE RIVER
(M-42 TO M-24)
AND REPAIR WORK ON THORACE
AND WEST FARGO
JAN. 1934

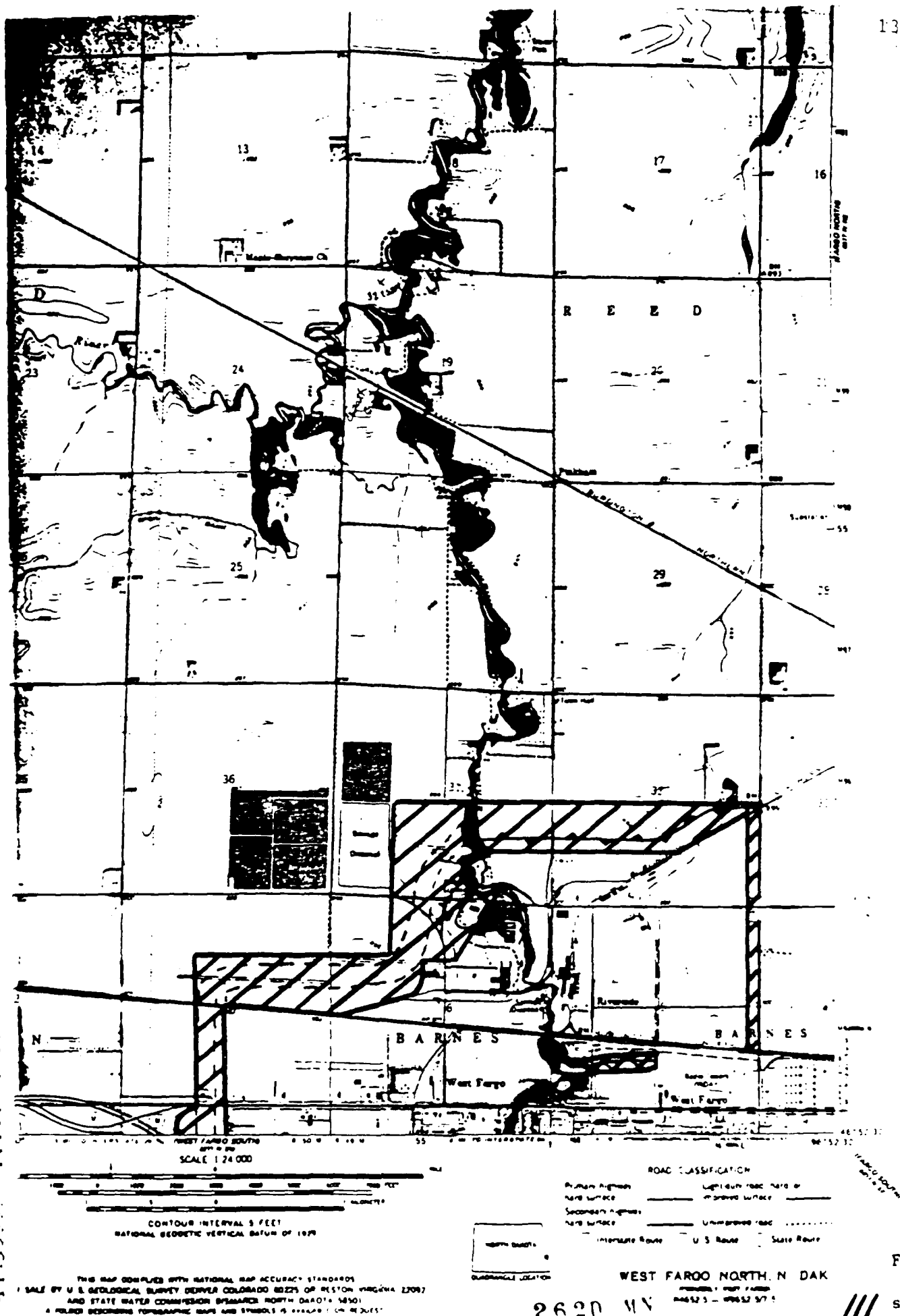


FIGURE 3

WEST FARGO SOUTH QUADRANGLE
NORTH DAKOTA—CASS CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

132

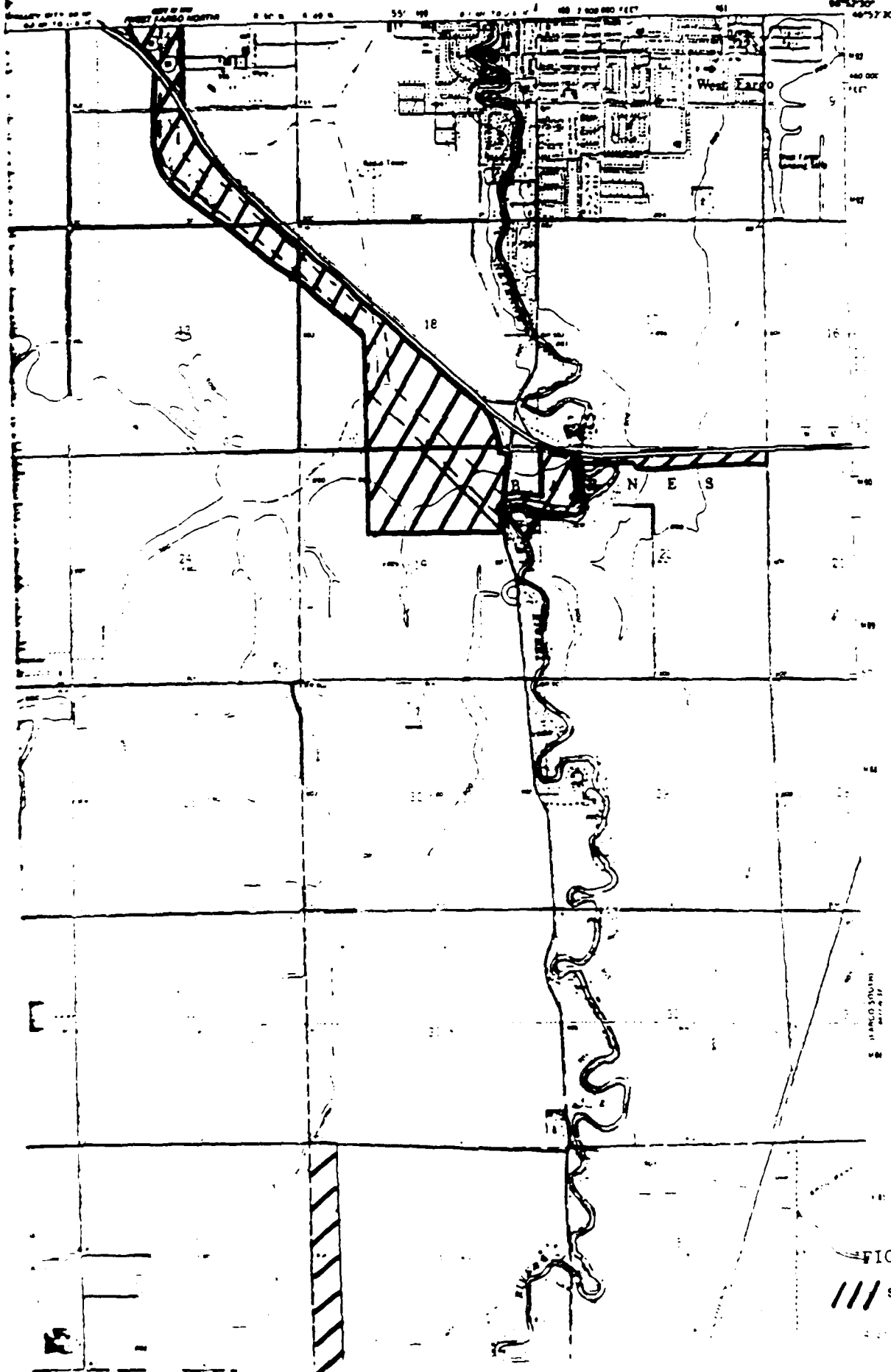
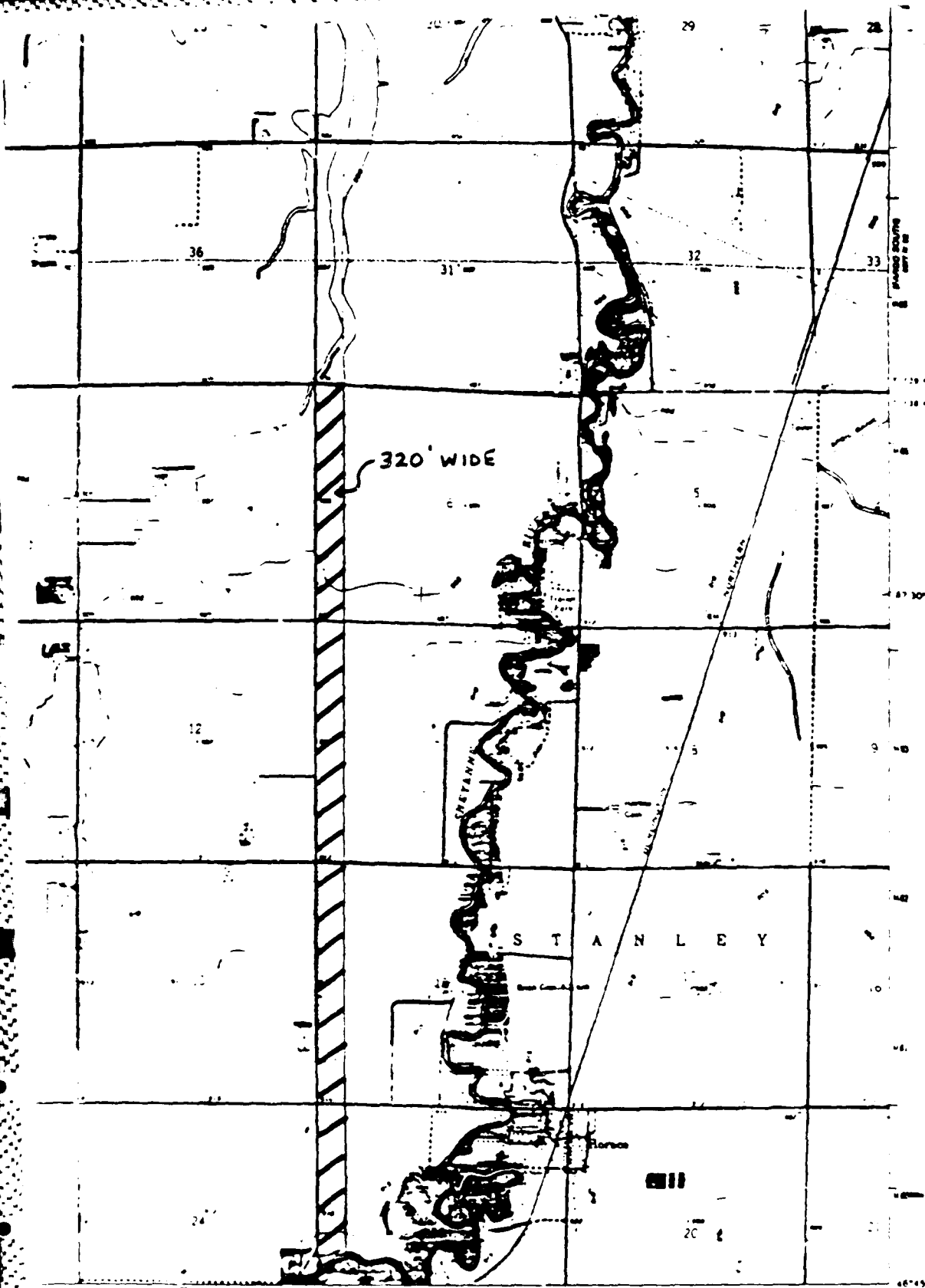


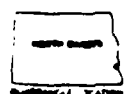
FIGURE 4
/// survey area



SCALE: 24,000



CONTOUR INTERVAL, 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



MAP COMPILES WITH NATIONAL MAP ACCURACY STANDARDS
TOPOGRAPHIC SURVEY BLANKS COLORADO 8825 OR BEST AVAILABLE 2200
STATE WATER COMMISSION (BUREAU OF NORTH DAKOTA 1996)
RECORDING TOPOGRAPHIC MAPS AND 87% ... AVAILABLE ON DEMAND

ROAD CLASSIFICATION

- | | |
|-------------------|--------------------------|
| Primary highway | Light duty road, hard or |
| hard surface | unimproved surface |
| Secondary highway | Unimproved road |
| hard surface | |
| Interstate Route | U.S. Route |
| | State Route |

WEST FARGO SOUTH, N. DAK.
PROBABLE SURVEY DATE: 1962
PAGE 5 - 1962 57 5

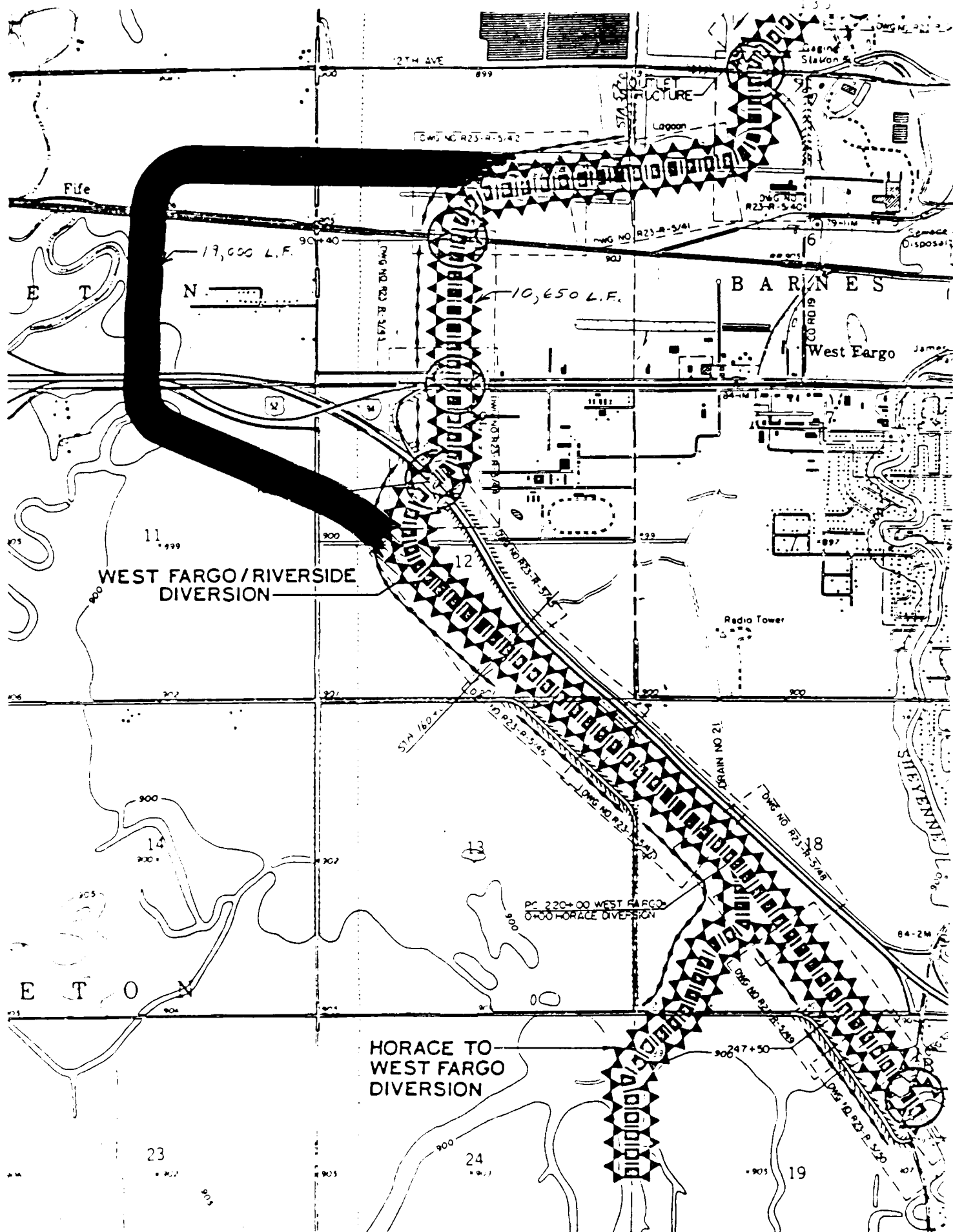
FIGURE 5

/// survey area

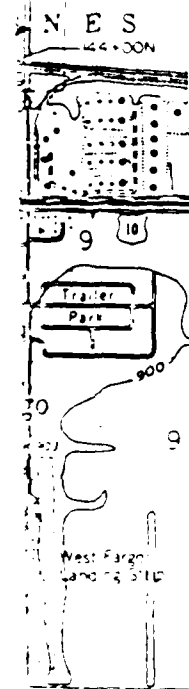
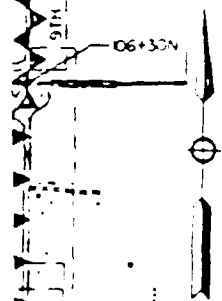
262 C
12W

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE 1 OF 1 PAGES	
2. AMENDMENT/MODIFICATION NO. 00001		3. EFFECTIVE DATE 87 FEB 4		4. REQUISITION/PURCHASE REQ NO. PDER-37-372		5. PROJECT NO. (if applicable)	
6. ISSUED BY Department of the Army St. Paul District, Corps of Engineers 1135 U.S. Post Office and Custom House St. Paul, Mn. 55101				7. ADMINISTERED BY (if other than Item 6) CODE			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) PAUL FRIEDMAN POWER ELEVATION ARCHAEOLOGY DIVISION PO BOX 2612 DENVER, CO 80201-2612				(f) 9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				10A. MODIFICATION OF CONTRACT ORDER NO. X DACW37-86-M-1052			
				10B. DATED (SEE ITEM 13) X 86 MAY 27			
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment. (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (if required) AM023055-000000 INCREASE: \$4,000.00							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14							
14. A THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. X CLAUSE 16 "CHANGES" B THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). C THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF D OTHER (Specify type of modification and authority)							
E IMPORTANT Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office							
15. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible) ADDITIONAL GENERAL PROVISIONS ARE HEREBY INCORPORATED. THE SCOPE OF WORK IS MODIFIED AS FOLLOWS: THE FOLLOWING SECTION UNDER 2.00 PROJECT DESCRIPTION IS ADDED. 2.06 A PHASE I CULTURAL RESOURCES SURVEY WILL ALSO BE UNDERTAKEN ALONG THE PROPOSED ALIGNMENT SHOWN IN FIGURE 6. THIS ADDITIONAL SURVEY WILL BE CONDUCTED IN ACCORDANCE WITH ALL OTHER PROVISIONS OF THIS SCOPE OF WORK. THIS WILL CHANGE THE TOTAL PURCHASE ORDER PRICE FROM \$11,200.00 TO \$15,200.00; AN INCREASE OF \$4,000.00.							
15A. NAME AND TITLE OF SIGNER (Type or print) George Lapaseotes, President				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MARILYN AIRD, CHIEF, PROCUREMENT BRANCH			
15B. CONTRACTOR SIGNATURE <i>George Lapaseotes</i> Signature of person authorized to sign		15C. DATE SIGNED 87 FEB 10		16B. UNITED STATES OF AMERICA BY <i>Marilyn Aird</i> (Signature of Contracting Officer)		16C. DATE SIGNED 87 FEB 6	

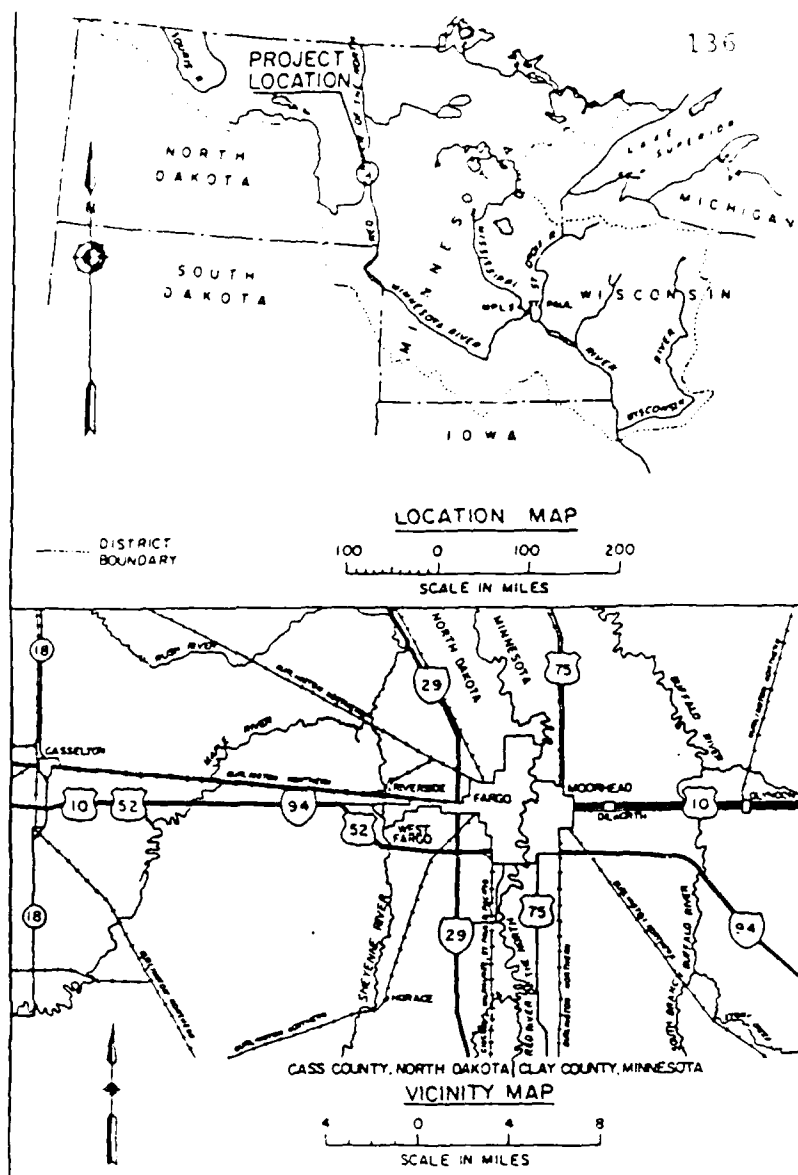
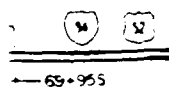
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.



33
NORTH TIEBACK
LEVEE



16
SOUTH TIEBACK
LEVEE



LEGEND

- ROAD RAISE/RELOCATION
- CLOSURE STRUCTURE
- LEVEE
- DIVERSION CHANNEL
- BRIDGE (BY OTHERS)
- INLET STRUCTURE
- OUTLET STRUCTURE
- SHELTER BELT

NOTES

1. DRAWING NUMBERS REFER TO DETAILED PLANS OF AREAS ENCLOSED BY DASHED LINES

R. S. L.
11/56

SYMBOL	DESCRIPTION	DATE	APPROVAL

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1
2. AMENDMENT/MODIFICATION NO. P000002	3. EFFECTIVE DATE 87 APR 7	4. REQUISITION/PURCHASE REQ. NO. PDER-87-372	5. PROJECT NO. (If applicable)	
6. ISSUED BY Department of the Army St. Paul District, Corps of Engineers 1135 U.S. Post Office and Custom House St. Paul, Mn. 55101		7. ADMINISTERED BY (If other than item 6)		

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) PAUL FRIEDMAN POWER ELEVATION ARCHAEOLOGY DIVISION PO BOX 2612 DENVER, CO 80201-2612	9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. X DACW37-87-M-1052 10B. DATED (SEE ITEM 13) 86 MAY 27
CODE	FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:

(a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
AM02305540000000 INCREASE: \$250.00

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A X CLAUSE 16 "CHANGES"
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(d)
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF
D. OTHER (Specify type of modification and authority)

E. IMPORTANT Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)

A. THIS ORDER IS INCREASED BY \$250.00 TO COVER AN ADDITIONAL FIELD SURVEY TO CORRECT MAP ERROR.

B. THE TOTAL PRICE OF THIS ORDER WILL CHANGE FROM \$15,200.00 TO \$15,450.00.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) George Lapaseotes, President, Powers Elevation, Inc.	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MARILYN AIRD, CHIEF, PROCUREMENT BRANCH
15B. CONTRACTOR/OFFEROR <i>George Lapaseotes</i> Signature of Contractor/Offeror authorized to sign	15C. DATE SIGNED 4/17/87
15D. UNITED STATES OF AMERICA BY <i>Marilyn Aird</i> Signature of Contracting Officer	16C. DATE SIGNED 87 APRIL 10

APPENDIX D:
Collected Lithic Artifacts

APPENDIX D

ANALYSIS OF COLLECTED LITHIC ARTIFACTS

By Mervin G. Floodman, M.A.

A total of nine lithic artifacts were collected along the survey of the Sheyenne River flood control project. They were analyzed by Mervin G. Floodman of Powers.

SITE 32CS42

The lithic artifacts picked up at Site 32CS42 included two projectile points and a biface. They are described below.

Corner-Notched Projectile Point (Figure 10)

Raw Material	-	Knife River flint
Length	-	24.0 mm
Width	-	18.0 mm
Thickness	-	3.9 mm
Blade Edge Length	-	18.9 mm
Stem Length	-	6.4 mm
Base Width	-	18.0 mm
Neck Width	-	12.5 mm
Notch Depth	-	2.4 mm
Notch Width	-	3.0 mm
Shoulder Width	-	17.8 mm
Weight	-	1.7 gm

This artifact is a small triangular projectile point with deep, well defined corner notches. The blade tip is rounded and may be broken off. The blade edges are straight to slightly excurvate and are smoothed to slightly irregular in shape. The general flaking pattern is irregular. Neither surface of the point is completely covered by flake scars. Flake scars extend 2.5 to 5.3 mm over most of the blade edge, although one portion of the blade edge is not flaked at all. The shoulders are oblique pointed with both tangs broken off. The stem is expanding to form an acute angled stem-base juncture. The base is markedly excurvate and unground. This projectile point style is typical of the Late Woodland period.

Serrated Projectile Point Midsection (Figure 10)

Raw Material	-	Mottled Grey and White Chert
Length	-	15.0 mm (incomplete)
Width	-	14.0 mm
Thickness	-	4.9 mm
Weight	-	1.1 gm

This specimen represents the midsection of a projectile point with the very tip and entire base broken and missing. The blade edges are markedly serrated. The tip appears to be broken from an impact fracture. All basal elements are missing. The blade edges are straight with flaking extending over the entire area of both surfaces.

Biface/Blank Fragment (Figure 10)

Raw Material	-	Brownish-Red Quartzite
Length	-	35.3 mm
Width	-	19.6 mm
Thickness	-	6.5 mm
Weight	-	4.8 gm

This artifact is an irregularly shaped biface or blank. The piece is finely flaked on both sides. One side of the piece exhibits steep step fractures and a rounded, thickened profile which probably resulted in discard of the tool as unsuitable for further reduction. The edges are irregular in outline with an irregular flaking pattern.

SITE 32CS44

The lithic artifacts picked up at site 32CS44 include a projectile point and two biface. They are described below.

Side-Notched Projectile Point (Figure 12)

Raw Material	-	White Chert
Length	-	22.8 mm (incomplete)
Width	-	15.9 mm
Thickness	-	4.8 mm
Blade Edge Length	-	14.5 mm (incomplete)
Stem Length	-	7.6 mm
Base Width	-	15.9 mm
Neck Width	-	12.5 mm
Notch Depth	-	2.0 mm
Notch Width	-	4.6 mm
Shoulder Width	-	15.7 mm
Weight	-	1.7 gm

This artifact is a small triangular projectile point with wide, shallow side notches. The blade tip is broken and missing. The blade edges are straight to slightly excurvate and are smoothed to slightly irregular in outline. General flaking on the piece is irregular. Both surface are entirely covered by flake scars. The shoulders form obtuse rounded angles. The stem is straight and forms a right angled stem-base juncture. The base is straight. One edge of the base is uneven and may have slightly broken in manufacture. The base is unground. This point is typical of the Late Woodland period.

Biface Tip or Base Fragment (Figure 12)

Raw Material	-	White Chert
Length	-	12.5 mm
Width	-	19.8 mm
Thickness	-	4.2 mm
Weight	-	0.9 gm

This specimen represents the broken tip or possibly a basal corner fragment of a biface or blank. The flaking and edges are irregular and would have been further prepared. The exact nature and function of the piece is unknown.

Biface/Preform Fragment (Figure 12)

Raw Material	-	Knife River flint
Length	-	25.0 mm (incomplete)
Width	-	15.0 mm (incomplete)
Thickness	-	3.6 mm
Weight	-	2.1 mm

The artifact is a finely flaked bifacial implement representing a basal corner and one lateral side. The opposite side and base, as well as the tip are missing. The artifact may represent a preform or blank broken in manufacture. The lateral edge is excurvate in shape with no basal construction or stem. The stem base juncture is an acute angle. The base is markeding incurevate or concave. One side is covered by flake scars, the other only partially. It is presumed to represent a preform for a projectile point or possibly an unnotched point broken in manufacture.

SITE 32CS43

Two lithic artifacts were picked up at site 32CS43. They are two bifaces, and are described below.

Thin Biface Lateral Edge Fragment (Figure 14)

Raw Material	-	White Chert
Length	-	20.5 mm (incomplete)
Width	-	14.2 mm (incomplete)
Thickness	-	5.3 mm
Weight	-	2.7 gm

This artifact represents a small lateral edge fragment of a much larger bifacial tool. The biface edge is straight to possibly slightly excurvate. The blade edge is smooth in outline and finely pressure flaked. No use-wear is evident along the bifacial edge suggesting the artifact

may represent a point or preform fragment. The specimen is non-diagnostic in nature.

Thick Biface/Blank Base (Figure 14)

Raw Material	-	White/Grey Chert
Length	-	28.0 mm (incomplete)
Width	-	33.5 mm
Thickness	-	9.8 mm
Weight	-	10.6 gm

The artifact represents the basal portion of a large biface or blank. The specimen is manufactured by direct percussion only. The edges are irregular and partially ground in places. The specimen was most likely broken in manufacture by end shock. The base is formed by rounded acute angles with a fairly straight base.

ISOLATED FIND #2

The isolate, a metate, was collected. It is described below.

Grinding Slab (Figure 15)

Raw Material	-	Diorite or Shale
Length	-	19.0 mm
Width	-	15.1 cm
Thickness	-	2.6 cm
Weight	-	1.25 kg

This artifact consists of a broken grinding slab or metate. It is broken through the center, across the width of the artifact. It is manufactured on a flat piece of diorite or shale which is unmodified except for the hollow grinding area. The grinding area is rounded and smooth and presents a hollow on the surface measuring about 10 cm in width. The hollowed out grinding area extends some 10 mm in depth at its deepest point. The length is broken and part is missing. The slab is not particularly diagnostic, as grinding tools have been present from Archaic through Late Prehistoric times. Given its location near site 32CS42 it may be Late Woodland in age.

APPENDIX E:

Collected Ceramic Artifacts

APPENDIX E

ANALYSIS OF COLLECTED CERAMIC ARTIFACTS

By Ann M. Johnson, Ph.D.

A total of seven ceramics from the West Fargo project were analyzed. One piece came from prehistoric site 32CS44 while the other six items were collected from prehistoric site 32CS42. They are illustrated in Figures 11 and 13 of this report, respectively.

PREHISTORIC SITE 32CS44

This one sherd is from the shoulder area of a pot. It is smoothed over cord roughened. The piece is non-diagnostic in terms of cultural affiliations. However, based on the paste it is different from the pottery recovered at the other site.

PREHISTORIC SITE 32CS42

The six ceramic pieces collected from this site represent one pot. One piece is from the neck, one piece is from the shoulder or just below the neck, and two pieces are from the mid-rim area, but lack adjoining lip and neck portions.

The core of this pottery is dark gray, with the exterior and interior being a reddish tan. The paste is hard, very blocky, with grit temper. The exterior treatment is smoothed over cord roughened, while the interior is smooth. The area receiving decoration has been smoothed. The shoulder area had trailed designs, but the fragment left is merely suggestive of this treatment. The neck had at least four rows of horizontally parallel cord wrapped rod decorations. The cord used was quite fine, about 1 mm in thickness.

The sherds come from a rather large pot, somewhat typical of the Middle Missouri tradition. The rim is 7 mm thick, which probably represents the average thickness for the vessel, noted from the more complete sherds.

While diagnostic attributes such as punctates and the upper rim/lip area is lacking, the likely cultural affiliation of this pottery is Blackduck.

APPENDIX F:

Price Quote

APPENDIX F

SHEYENNE RIVER FLOOD CONTROL PROJECT
PRICE ESTIMATE FOR PHASE II TESTING

I. DIRECT LABOR

Personnel	Field Work/ hours	Laboratory Analysis hours	Report Writing hours	NRHP Form Prep- ara- tion/ Hours	Total Labor/ hours	Rate \$/hour	Totals
Principal Investigator	72	40	80	16	208	x \$11.00	= \$ 2,288.00
Archaeological Crew	72	--	--		72	x \$ 9.00	= \$ 648.00
Department Manager	--	--	8		8	x \$15.00	= \$ 120.00
Editor	--	--	16		16	x \$12.00	= \$ 192.00
Clerical	--	--	24	8	32	x \$ 8.00	= \$ 256.00
Graphics	--	--	8		8	x \$ 8.50	= \$ 68.00

Total for Direct Labor: \$3,572.00

II. LABOR OVERHEAD

Powers Permanent Employees: \$2,924.00 x 40% = \$ 1,169.60
 Temporary Employees: \$648.00 x 16% = \$ 103.68

Total for Labor Overhead: \$1,273.28

Total for Labor and Overhead: \$4,845.28

III. OTHER DIRECT COSTS (ODCS)

Travel - 1,000 miles x \$0.30/mile = \$ 300.00
 Hotel and Per Diem - \$35.00/day/person x 18 field/person/days = \$ 630.00
 Radiocarbon Dating - \$200.00/per sample x 2 samples = \$ 400.00
 Ceramic Analysis - \$25.00/hour x 40 hours = \$ 1,000.00
 Faunal Analysis - \$20.00/hour x 40 hours = \$ 800.00
 Supplies = \$ 100.00
 Report Production Costs = \$ 300.00
 Palynology = \$ 100.00

Total for Other Direct Costs: \$3,630.00

Total for Labor, Overhead and Other Direct Costs: \$8,475.28

IV. GENERAL AND ADMINISTRATIVE EXPENSES (G & A)

Labor, Overhead, and other Direct Costs: \$8,475.28 x 22% = \$ 1,864.56

Total Cost of Labor, Overhead, ODCS, and G & A: \$10,339.84

V. FEE

Total Costs: \$10,339.84 x 12% = \$ 1,240.78

VI. TOTAL PRICE: = \$11,580.62

APPENDIX G:

Vitae



Powers Elevation, Inc.

MERVIN G. FLOODMAN

VITA

OIL WELL ELEVATIONS-LOCATIONS
ENVIRONMENTAL/ARCHAEOLOGICAL SERVICES
P.O. Box 2812
Denver, Colorado 80201-2812
Phone 303/321-2217
Toll Free 1-800-824-2550

PRESENT
PROFESSIONAL
STATUS

District Archaeologist - Williston/Dickinson,
North Dakota District Archaeology Department,
Powers Elevation. District Telephone numbers
(701) 774-0679; (701) 572-3608.

EDUCATION

B.A., Anthropology and History, 1975, Saint
Cloud State University.

M.A., Anthropology, 1981, University of Northern
Colorado.

PROFESSIONAL
EXPERIENCE

1981 - Present District Archaeologist - Williston, North Dakota
District Office, Powers Elevation.

1980 - 1981 Field Archaeologist - Williston, North Dakota
District Office, Powers Elevation.

1980 Field Assistant - Archaeological Services, Grand
Junction, Colorado.

FIELD WORK

1981 - 1986 As Powers Elevation District Archaeologist served
as Lead Field Investigator for over 500 cultural
resources jobs in Montana, South Dakota, and
North Dakota.

1986 Principal Investigator and Project Archaeologist
on the cultural resources inventory of the Sheyenne
River Flood Control Project, Cass County, North
Dakota, by Powers Elevation for the U.S. Army
Corps of Engineers, St. Paul District.

1986 Principal Investigator and Project Archaeologist
on the cultural resources inventory of the Neche
Flood Control Project, Pembina County, North
Dakota, by Powers Elevation for the U.S. Army
Corps of Engineers, St. Paul District.

1986 Project Archaeologist on the cultural resources
inventory of the Gibson Dam to Choteau transmission
line, Lewis and Clark and Teton Counties, Montana,
by Powers Elevation for Mitex, Inc.

Mervin G. Floodman
Vita
Page 2

FIELD WORK, (CONTINUED)

- 1985-1986 Principal Investigator and Project Archaeologist on the survey of the Fort Berthold Tribes 1-13 well pad and access, site testing at 32MZ748, and monitoring of construction, Fort Berthold Indian Reservation, McKenzie County, North Dakota, by Powers Elevation for E.P. Operating Company.
- 1985 Principal Investigator and Project Archaeologist on the archaeological testing program at site 32MZ721, Silurian Unit 40-1 well location, McKenzie County, North Dakota, by Powers Elevation for Texaco, Inc.
- 1985 Principal Investigator and Project Archaeologist on the archaeological test excavations at site 32MZ727, Silurian Unit 45-1 well location, McKenzie County, North Dakota, by Powers Elevation for Texaco, Inc.
- 1984 Principal Investigator and Project Archaeologist on archaeological test excavations at sites 32MZ173 and 32MZ233, McKenzie County, North Dakota, by Powers Elevation for Texaco, Inc.
- 1983 - 1984 Project Archaeologist on the archaeological testing program on the Upper Souris River, North Dakota, by Powers Elevation for the U.S. Army Corps of Engineers, St. Paul District.
- 1983 Principal Investigator and Project Archaeologist on the survey of the McKenzie County Gathering System, North Dakota, by Powers Elevation for Getty Trading and Transportation Company.
- 1983 Principal Investigator and Project Archaeologist on the Charlson Oil Field Block Surveys, McKenzie County, North Dakota, by Powers Elevation for Texaco, Inc.
- 1983 Principal Investigator and Project Archaeologist on the archaeological test excavations at sites 32MZ46 and 32MZ685, McKenzie County, North Dakota, by Powers Elevation for Tom Brown, Inc.

Mervin G. Floodman
Vita
Page 3

FIELD WORK, (CONTINUED)

- 1983 Principal Investigator and Project Archaeologist on the block survey, Billings County, North Dakota, by Powers Elevation for Donald C. Slawson Oil Company.
- 1983 Project Archaeologist on the survey of the Rocky Butte federal coal lease tract, Campbell County, Wyoming, by Powers Elevation for Texas Energy Services, Inc.
- 1982 - 1983 Principal Investigator and Project Archaeologist on the block survey, Billings County, North Dakota, by Powers Elevation for Ladd Petroleum Corporation.
- 1982 Project Archaeologist on the cultural resources survey of the Lake Darling-Souris River Project, North Dakota, by Powers Elevation for the U.S. Army Corps of Engineers, St. Paul District.
- 1982 Project Archaeologist on the archaeological excavations at sites 32MZ333 and 32MZ334, McKenzie County, North Dakota, by Powers Elevation for Abraxas Petroleum Company.
- 1981 Project Archaeologist on the survey of the Little Missouri Pipeline, Golden Valley and Billings County, North Dakota, by Powers Elevation for Wesco.
- 1981 Project Archaeologist on the block survey, McKenzie County, North Dakota, by Powers Elevation for Patrick Petroleum Corporation.
- 1981 Project Archaeologist on the archaeological testing of sites 32OL417-418, 32OL9, 32OL11, and 32OL421, Oliver County, North Dakota, by Powers Elevation for the Oliver County Commissioners.
- 1981 Project Archaeologist on the Lone Butte surveys, McKenzie County, North Dakota, by Powers Elevation for Gulf Oil Corporation.
- 1979 Crew Member on survey, testing and excavation at the John Redmond Reservoir, conducted by the Kansas State Historical Society.

Mervin G. Floodman
 Vita
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FIELD WORK, (CONTINUED)

- 1978 Crew Member on survey and testing for proposed changes in the Great River Road in Aitkin County, Minnesota.

- 1978 Crew Member for excavation at the Rainbow site on the Held Creek Watershed Project, Marion County in Northwestern Iowa for Luther College, Decorah, Iowa.

- 1977 Crew Member on survey and testing of sites at the proposed YellowSmoke State Park, Dennison, Iowa for the Iowa State Archaeologist's Office.

- 1976 Crew Member on survey and testing of sites at Elk Rock State Park, Red Rock Reservoir, Marion County, Iowa, conducted by Iowa State University.

- 1975 - 1977 Crew Member on site survey and excavation work at Saylorville Reservoir by Iowa State University.

- 1974 Attended a ten-week field school run by St. Cloud State University and the Minnesota Historical Society.

SELECTED PUBLICATIONS

- 1981a Oliver County Lewis and Clark Trail Testing Addendum: Continued Testing at 32OL417/481 (Badcurve Site), 32OL9 (Smith Farm Village Site), 32OL11 (Lower Sanger Village Site), and 32OL421 (Black Water Site). Powers Elevation, Denver. Report to Oliver County Commissioners.

- 1981b Lewis and Clark Trail Site 32OL258 Testing. Powers Elevation, Denver. Report to Oliver County Commissioners.

- 1981c Blacktail Federal 1-4 Alternat Access Shovel Testing Program at Sites 32BI298 and 32BI299. Powers Elevation, Denver. Report to Patrick Petroleum Corporation.

- 1981d Addendum to Letec Al Aquitaine 2-12: Shovel Testing Report. Powers Elevation, Denver. Report to Letec.

Mervin G. Floodman
Vita
Page 5

SELECTED PUBLICATIONS, CONTINUED:

- 1981e Patrick Petroleum Block Survey, Sections 20, 21, 29, and 30, T.145N., R.98W., McKenzie county, North Dakota. Powers Elevation, Denver. Report to Patrick Petroleum Corporation.
- 1981f Little Missouri Pipeline Survey. Powers Elevation, Denver. Report to Wesco.
- 1981g Federal 4-25-4A Access Road Survey. Powers Elevation, Denver. Report to Gulf Oil Corporation.
- 1982a Patrick Petroleum Harris Federal 1-30, Testing Program at Site 32GV52. Powers Elevation, Denver. Report to Patrick Petroleum Corporation.
- 1982b Patrick Petroleum 320 Acre Block Survey, Section 20, T.113N., R.100W., Billings County, North Dakota. Powers Elevation, Denver. Report to Patrick Petroleum Corporation.
- 1983a Ulteig Engineers, Inc., Testing of Elkhorn Substation, Site 32BI356, Billings County, North Dakota. Powers Elevation, Denver. Report to Ulteig Engineers, Inc.
- 1983b Getty Trading and Transportation Company McKenzie County Gathering System, McKenzie County, North Dakota. Powers Elevation, Denver. Report to Getty Trading and Transportation Company.
- 1983c Texaco, Inc., Block Survey, N1/2 Section 14, T.153N., R.95W., McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1983d Texaco, Inc., Block Survey, Sections 17 and 18, T.153N., R.95W., McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1983e Ladd Petroleum Block Survey, W1/2 Section 5, T.144N., R.100W., Billings County, North Dakota. Powers Elevation, Denver. Report to Ladd Petroleum Corporation.
- 1983f The Abraxas Project: Archaeological Mitigation at Sites 32MZ333 and 32MZ334. Co-authored with Marcia J. Tate and Robert A. Williams. Cultural Resources Report No. 9, USDA Forest Service, Northern Region, Missoula.

Mervin G. Floodman
Vita
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SELECTED PUBLICATIONS, CONTINUED:

- 1983g Viegel Engineering, Sentinel Butte Step I Facility, Report of Testing at Site 32GV32, Golden Valley County, North Dakota. Powers Elevation, Denver. Report to Viegel Engineering.
- 1983h A Cultural Resources Inventory of Portions of the Texas Energy Services, Inc. Rocky Butte Coal Mine Lease Tract, Campbell County, Wyoming. Co-authored with Paul D. Friedman. Powers Elevation, Denver. Report to Texas Energy Services, Inc.
- 1984a Tom Brown, Inc. Federal 19-42 Access Road Archaeological Testing at Sites 32MZ46 and 32MZ685, McKenzie County, North Dakota. Powers Elevation, Denver. Report to Tom, Brown, Inc.
- 1984b Texaco, Inc. Silurian Unit 40, 400 Acre Block Survey, McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1984c Report of the Initial Archaeological Testing Program at Stone Circle Site 32MZ174 at the Texaco, Inc. Silurian Unit #35 Well Pad, McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1984d Donald C. Slawson Oil Company, Final Report of the Block Survey of Approximately 1,360 Acres in Section 1, T.140N., R.101W., and Sections 6, 7 and 8, T.140N., R.100W., Billings County, North Dakota. Powers Elevation, Denver. Report to Donald C. Slawson Oil Company.
- 1985a Milestone Petroleum, Inc., Preliminary Report, Archaeological Testing, Site 32MZ714, at the Proposed 34-19 Federal Well Pad Location, McKenzie County, North Dakota. Powers Elevation, Denver. Report to Milestone Petroleum.
- 1985b Final Report of the 1982 Cultural Resources Survey of the Lake Darling-Souris River Project, North Dakota. Co-authored with Paul D. Friedman and Kurt P. Schweigert. Powers Elevation, Denver. Report to the U.S. Army Corps of Engineers, St. Paul District.

Mervin G. Floodman
 Vita
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SELECTED PUBLICATIONS, CONTINUED:

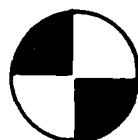
- 1985c Archaeological Investigations at 32MZ173 and 32MZ233 in the Charlson Oil Field, Northeastern McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1986a Final Report Test Excavations at Site 32MZ748 on the Fort Berthold Indian Reservation, Eastern McKenzie County, North Dakota. Powers Elevation, Denver. Report to E.P. Operating Company.
- 1986b Final Report of the Archaeological Testing of a Portion of Site 32MZ721 at the Texaco, Inc. Silurian Unit #40-1 Well Location, McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1986c Final Report of the 1983-1984 Archaeological Testing Program for the Lake Darling-Souris River Project, North Dakota. Co-authored with Paul D. Firedman. Powers Elevation, Denver. Report to U.S. Army Corps of Engineers, St. Paul District.
- 1986d Preliminary Testing of Stone Circle Site 32MZ727, for the Texaco, Inc. Silurian Unit #45-1 Well Location, Northeastern McKenzie County, North Dakota. Powers Elevation, Denver. Report to Texaco, Inc.
- 1986e Cultural Resources Survey of the Proposed Gibson Dam to Choteau Transmission Line, Lewis and Clark and Teton Counties, Montana. Co-authored with Paul D. Friedman and Marcia J. Tate. Powers Elevation, Denver. Report to Mitex, Inc.
- 1986f Draft Final Report of the Phase I Cultural Resources Investigation of a Proposed Flood Control Project Along the Pembina River, at Neche, Pembina County, North Dakota. Powers Elevation, Denver. Report to the U.S. Army Corps of Engineers, St. Paul District.

STATE
EXPERIENCE

North Dakota, South Dakota, Montana, Wyoming, Colorado, Kansas, Iowa, and Minnesota.

MEMBERSHIP IN
PROFESSIONAL
ORGANICATIONS

Plains Anthropological Association
 North Dakota Archaeological Association
 Professional Council of North Dakota Heritage
 Colorado Archaeological Society



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GREGORY S. NEWBERRY

VITA

PRESENT PROFESSIONAL STATUS:

District Archaeologist, Archaeology Department Powers Elevation, Inc., Denver, Colorado.

EDUCATION:

- B.A. Anthropology. University of Northern Colorado, Greeley, 1973.
- M.A. Anthropology. University of Wyoming, Laramie, 1982.
- B.S. Elementary Education. University of Wyoming, Laramie, 1985.

PROFESSIONAL EXPERIENCE:

- 1976 Research Associate, Office of the State Archaeologist of Colorado, Colorado Historical Society, Denver.
- 1978- Teaching Assistant. Department of Anthropology, University of Wyoming, Laramie.
- 1979
- 1980- Field Archaeologist, Archaeology Department, Powers Elevation, Denver.
- 1981
- 1982- Senior Field Archaeologist, Archaeology Department, Powers Elevation.
- 1987
- 1982- Instructor, Adult Education, Eastern Wyoming College, Torrington.
- 1983
- 1985 Archaeological Technician, U.S. Bureau of Land Management, Casper, Wyoming.
- 1985- Elementary School Teacher, Wheatland, Wyoming and Gillette, Wyoming.
- 1987

FIELD WORK:

- 1972 Survey of the Groves Ranch, Weld County, Colorado, for the University of Northern Colorado.
- 1973 Survey of the lower Coal Creek area in Weld County, Colorado, for the University of Northern Colorado.
- 6/79- Crew Leader on the reconnaissance survey of Fort Wingate Depot Activity, Gallop, New Mexico, for the University of Southern Colorado.
- 8/79

Gregory S. Newberry
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FIELD WORK (CONTINUED):

6/80- 7/80	Crew Member, Beaucoup Site Mitigation Project, Phillips County, Montana, for Powers Elevation.
7/80	Crew Member for Tenneco Block Survey in North Dakota, for Powers Elevation.
7/80	Crew Member, Dillenger Ranch Block Survey, Campbell County, Wyoming, for Powers Elevation.
6/80- 8/80	Crew Member, 40 Well Pads, principally in Wyoming for North Dakota, for Powers Elevation.
6/80- 8/80	Crew Member, 15 Pipelines, principally in Wyoming, and Powers Elevation.
7/81	Crew Member, Oliver County Site Testing Program, North Dakota, for Powers Elevation.
8/81	Crew Member, Texas Energy Block Survey, Campbell County, Wyoming, for Powers Elevation.
8/81	Project Archaeologist, 30 to 40 Well Pads, principally in Wyoming, for Powers Elevation.
8/81	Project Archaeologist, 10 to 15 Pipelines, principally in Wyoming, for Powers Elevation.
7/82	Crew Chief, Abraxas Petroleum Mitigation Program at Sites 32MZ333 and 32MZ334, McKenzie County, North Dakota, for Powers Elevation.
7/82	Crew Chief, two Patrick Petroleum Block Surveys, Billings County, North Dakota, for Powers Elevation.
9/82	Crew Chief, Sohio Monument Draw Block Survey, Fremont County, Wyoming, for Powers Elevation.
9/82	Crew Chief, survey of the Souris River Project, Minot, North Dakota, for Powers Elevation.
1982	Project Archaeologist, 13 Well Pads, principally in Wyoming and Montana, for Powers Elevation.
1982	Project Archaeologist, 18 Pipelines, principally in Montana and North Dakota, for Powers Elevation.

Gregory S. Newberry
Vita
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FIELD WORK (CONTINUED):

- 7/83 Project Archaeologist, Mitigation Program at Site 4SW5057 on the Frontier Pipeline, southwestern Wyoming, for Powers Elevation.
- 7/83 Crew Chief, Mitigation Programs at two sites on the Frontier Pipeline, Wyoming, for Powers Elevation.
- 8/83 Crew Chief, Upper Souris River Testing Project, Minot, North Dakota, for Powers Elevation.
- 7/83-8/83 Crew Chief, Texas Energy Block Survey, Campbell County, Wyoming, for Powers Elevation.
- 6/83- Project Archaeologist on numerous well pads and small scale surveys in Montana, North Dakota, South Dakota and Wyoming, for Powers Elevation.
- 6/84-9/84 Project Archaeologist on numerous small scale projects, for Powers Elevation.
- 5/87 Crew Member, Mitigation at Site 32MZ721, McKenzie County, North Dakota, for Powers Elevation.
- 5/87 Crew Member, Survey of Sheyenne River Flood Control Project, Cass County, North Dakota, for Powers Elevation.
- 6/87 Crew Member, Survey of Devils Lake Flood Control Project area in North Dakota, for Powers Elevation.
- 6/87-7/87 Crew Chief, Mitigation at the Senac Dam Site, Colorado, for Powers Elevation.

SELECTED PUBLICATIONS

- 1979 A Preliminary Report on the Reconnaissance Survey of Fort Wingate Depot Activity, Gallop, New Mexico. Ms produced for the University of Southern Colorado, Pueblo.
- 1980- Present Numerous small cultural resource inventory reports on file at the appropriate BLM, BIA, and USFS offices and at Powers Elevation, Denver.

Gregory S. Newberry
Vita
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FIELD WORK (CONTINUED):

- 1982 A Multivariant Analysis of End Scrapers from the Northwestern High Plains. Masters thesis, Department of Anthropology, University of Wyoming, Laramie.
- 1984 Co-author of Archaeological Investigations along the Frontier Pipeline, Southern Wyoming, Final Report. Powers Elevation, Denver. Submitted to Frontier Pipeline Co., Chicago.

PROFESSIONAL SOCIETIES:

Society of American Archaeology
Plains Anthropological Society

HONORS:

Dean's List, University of Northern Colorado. 1972 and 1973

REFERENCES:

Available upon request



POWERS ELEVATION

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PHONE NO. 303/321-2217

NICK G. FRANKE

VITA

PRESENT
PROFESSIONAL
STATUS

Field Archaeologist - Williston District
Archaeology Division, Powers Elevation,
Denver, CO
(701) 572-3608 (District Phone)

PERSONAL
INFORMATION

46, married, excellent health

EDUCATION

BA History, 1962 Indiana University,
Bloomington, Indiana

MA Anthropology, 1964 Indiana University,
Bloomington, Indiana

PROFESSIONAL
EXPERIENCE

1981	Principal Investigator, Cultural Resource Management Plan, Garrison Diversion Unit, North Dakota, University of North Dakota, Grand Forks. North Dakota.
1970 - 1980	Research Archaeologist, State Historical Society of North Dakota, Bismarck, North Dakota.
1970	Contract Historical Research, self-employed, St. Paul, Minnesota.
1969	Project archaeologist, Minnesota Highway Archaeological Survey, conducted by the Minnesota Historical Society, St. Paul, Minnesota.
1967	Crew member, excavating at Yankeetown site, southern Indiana.
1965	Crew member, excavating at Dickson Mounds State Memorial, central Illinois.
1964	Attended Indiana University archaeological field school, Mann site, southwestern Indiana.
1963	Crew member, survey of the Mississiniwah Reservoir, central Indiana.

TEACHING
EXPERIENCE

- 1972 - Instructor, Introductory Anthropology, Evening Division, Bismarck Junior College, Bismarck, North Dakota.
- 1974
- 1968 - Graduate Teaching Assistant, Anthropology, Department of Anthropology, University of Minnesota, Minneapolis, Minnesota.
- 1970
- 1966 - Instructor in Anthropology, College of Saint Teresa, Winona, Minnesota.
- 1968

PROFESSIONAL
MEMBERSHIPS

Plains Conference
Society for American Archaeology
Society for Historical Archaeology

PUBLICATIONS

- 1973a (Review): Among the Indians: Four Years on the Upper Missouri, 1858 - 1862. (1972). By Henry A. Boller. Edited by Milo Milton Quaife. North Dakota History: Journal of the Northern Plains, Vol. 40, No. 4:33.
- 1973b "The Antoine Gingras Historic Site." Plains Talk. Vol. 4, No. 1:1-6.
- 1974 "Fur Trade Buttons." North Dakota History: Journal of the Northern Plains, Vol. 41, No. 3: "Editor's Choice."
- 1976a (Review): Metal Weapons, Tools, and Ornaments of the Teton Dakota Indians. (1975). By James Austin Hanson. North Dakota History: Journal of the Northern Plains, Vol. 43, No. 2:105.
- 1976b "Glass Trade Beads." North Dakota History: Journal of the Northern Plains, Vol. 43, No. 3: "Editor's Choice."
- 1978 (Review): The Fur Trade in Minnesota: An Introductory Guide to Manuscript Sources. (1977). Compiled by Bruce M. White. North Dakota History: Journal of the Northern Plains, Vol. 45, No. 2:37-38.
- 1979 (Review): Method and Theory in Historical Archaeology. (1977). By Stanley South. North Dakota History: Journal of the Northern Plains, Vol. 46, No. 1:26.

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